OMRON

# SNMP/Web Card SC20G2

# Operation Manual

## Installation

- This document contains the information you need for using safely SNMP / Web card. Please read carefully before installation and use.
- Please keep it at hand carefully so that you can refer to it at any time, when this book is required.
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# Introduction

Thank you for purchasing the OMRON SNMP/Web card lately

## ■ Correspondence specification

- This product is equipment which makes network connection possible by inserting in the slot of the OMRON uninterruptible power supply (UPS).

## ■ Functional feature

- By inserting this product in an uninterruptible power supply (UPS), status acquisition from an uninterruptible power supply (UPS) and command issue to an uninterruptible power supply (UPS) are enabled.
- By inserting this product in an uninterruptible power supply (UPS), an uninterruptible power supply (UPS) is manageable even from the personal computer which does not carry a serial port.

## ■ Offer of automatic shutdown software

- Automatic shutdown software is enclosed by this product. (Please look at the newest information by our homepage.)
- It is possible to shut down by setup in the following cases.
  - When a main power supply system is downed
  - When the battery of an uninterruptible power supply (UPS) falls
  - When the connection capacity of an uninterruptible power supply (UPS) exceeds
  - When the temperature of an uninterruptible power supply (UPS) rises
- Automatic shutdown software and a script shutdown can perform schedule operation.
- A computer can be safely suspended by automatic shutdown software and script shutdown.

## ■ Be related with the license of automatic shutdown software.

- You can use this product for two or more computers which perform shutdown via a network by installing it.

■ About export of this product

When you wish issue of parameter sheet, please apply to our homepage.

[Homepage address]

https://www.oss.omron.co.jp/ups/support/export.html

In the case of an inquiry, the serial number of this product is required.

I have indicated the serial number (S/N) on the seal of pasting at the container box side or the main part base back.

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# Safety attention

In order to prevent an injury, failure, a fire, etc., please be sure to read notes currently explained here.

- The sign and meaning about the safety of this operation manual are as follows.

| | |
|---|---|
| **Attention** | If the mistaken handling is carried out, people get injured or the contents generating of physical loss or damage is assumed to be are shown. |

*Physical loss or damage means the expansion damage concerning a house and household effects, livestock, and a pet.

: It means prohibition (it must not carry out).
For example, means the ban on decomposition.

: It means compulsion (it must carry out).
For example, means being connected by the ground.

## Attention

When you perform insertion and removal of this product , be sure to turn off the main part of an uninterruptible power supply (UPS) and connection apparatus, and to carry out in the state "AC input" plug is pulled out from a power receptacle.

- There is fear of an electric shock.

Do not decomposition, repair, and reconstruction.

- There is a risk of receiving an electric shock or starting a fire.

When you perform attachment and removal of this product to an uninterruptible power supply (UPS), please work by installing an uninterruptible power supply (UPS) in the stable place and the direction which is not reversed.

- It may be injured if a falling and tumble occur.

The uninterruptible power supply (UPS) furnished with this product should be carried out ground connection (grounding) certainly.

- If an uninterruptible power supply and other apparatus contact simultaneously, without connecting a ground, an electric shock may be received.

It is being unable to touch the parts on a substrate end face or a substrate, when performing the insertion and removal of this product.

- Since a substrate end face and parts are sharp, it may be injured if it touches.
- There is a possibility of burning oneself if parts are high temperature.
- Parts sensitive to static electricity are being used for this product.

Please do not touch the contact port and other parts of a connector in particularly empty-handed.

A liquid cannot be touched even if a liquid is on an internal board.

- If it will be in such a state, please do not use it by any means. But please request the check and repair to the store or our company of a purchase.
- There is a possibility of carrying out loss of eyesight and a burn.
- If it adheres to eyes or the skin, please wash away with a lot of clean water immediately, and receive a medical examination of a doctor.

The "power supply" switch of the connected uninterruptible power supply (UPS) should be turned off and pulling out "AC input" plug from a power receptacle, when smoke, a nasty smell, and an abnormal sound occur from this product.

- If it will be in such a state, please do not use it by any means. But please request the check and repair to the store or our company of a purchase.

An operating condition and environment given in this description, and the operating condition and environment of the uninterruptible power supply (UPS) with which it is equipped are kept.

The removed battery should not be put on the place which infants' hand reaches.

- There is a risk that the infant swallow.

A battery is not used for other uses. Do not disassemble, heated or dispose of in a fire

- Battery gets very hot, and there is a danger of explosion or fire

\+ and - of a battery are not short-circuited with wire etc.

- There is a risk of starting generation of heat and a fire

Do not soak or do not pour water

- May cause a fire or electric shock
- When you soak in water, please stop use of this product immediately, and request check and repair.

Do not leave the place to become the high temperature and a strong place of the direct lays of the sun.

- Battery gets very hot, and there is a danger of explosion or fire

## About disclaimer

Even if it is an accident resulting from use of our products, it cannot respond to the guarantee of all the damage including the abnormalities of equipment, connection apparatus, and software, the damage to failure, and other secondary damage.

## Request for dispose

When disposing of this product, please handle correctly according to the disposal method of each local government.

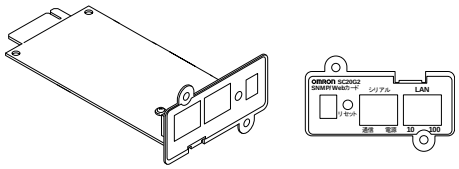
# 1. Before Using

## 1.1 The check of enclosed items

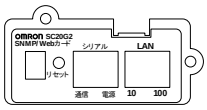
Please check whether there is any damage in the appearance of this product, or all the following packing articles are included.

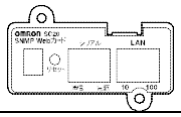
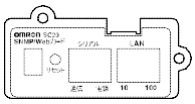
＊When a packing article has fault and shortage, please ask the store of a purchase, or the OMRON electronic device customer support center.

1. SNMP/Web Card 1 piece
   (BU-SW series, BU-RW series, BN-S series, BN-R series, BN-T series bracket attached)



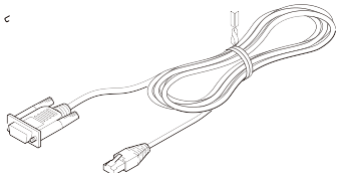
2. Bracket for exchange 1 piece



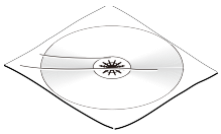
| Bracket |  |  |
|---|---|---|
| Model | BN50T, BN75T, BN100T, BN150T,<br>BN220T, BN300T<br>BN50S, BN75S, BN100S, BN150S,<br>BN220S, BN300S<br>BN75R, BN150R, BN300R<br>BU50SW, BU75SW, BU100SW,<br>BU150SW<br>BU75RW, BU100RW, BU200RW,<br>BU300RW<br>BU60RE, BU100RE<br>BU1002SW, BU3002SW<br>BU1002RW, BU2002RWL, BU3002RWL,<br>BU5002RWL | BN100XR,<br>BN150XR,<br>BN240XR |

Please refer the following web page for details.
(https://www.oss.omron.co.jp/ups/)

3. Serial connection cable 1 piece



4. CD-ROM 1 piece
(Instruction manual, shutdown software, etc.)

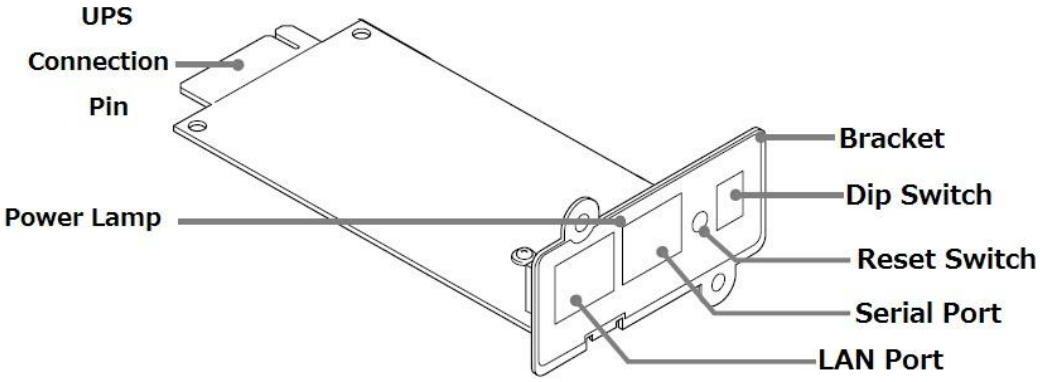


5. Installation instruction (Japanese/English) 2 pieces

6. Warranty card (in end of Installation instruction. Japanese/English) 2 pieces

## 1.2 The name of each part of a main part

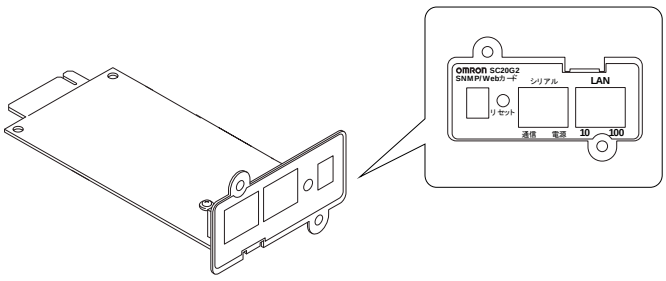
The name of each part of a SNMP/Web card is as follows.




## 1.3 Exchange of a bracket

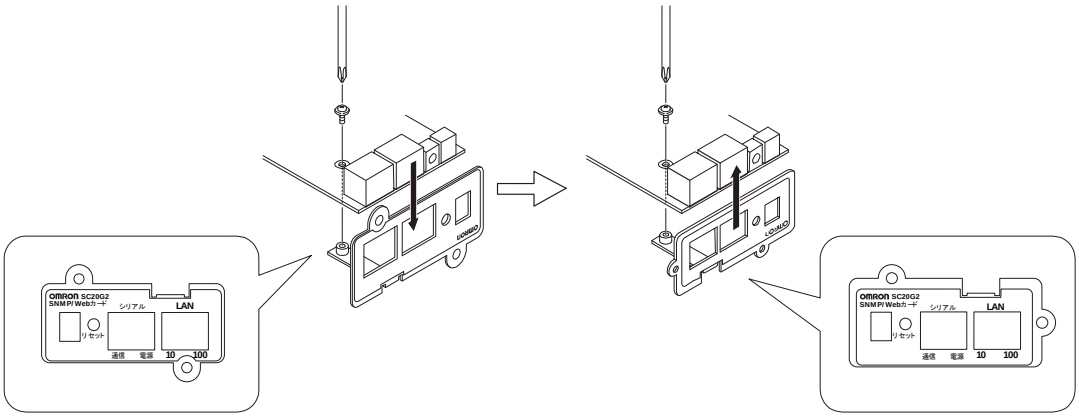
The screw hole position of a slot changes with uninterruptible power supply (UPS) model. Please exchange brackets if needed.

- It is exchange needlessness when connecting it with follows.
  BU50SW/BU75SW/BU100SW/BU150SW, BU1002SW/BU3002SW,
  BU75RW/BU100RW/ BU200RW/BU300RW,
  BN50S/BN75S/BN100S/BN150S/BN220S/BN300S/BU60RE/BU100RE/
  BN75R/BN150R/BN300R/BN50T/BN75T/BN100T/BN150T/BN220T/BN300T
  /BU1002RW/ BU2002RWL/BU3002RWL/BU5002RWL




Please refer the following web page for details.
(https://www.oss.omron.co.jp/ups/ )

- Please exchange for an attached exclusive bracket, When you connect it with BN100XR/BN150XR/BN240XR




Bracket for
BN50T, BN75T, BN100T, BN150T, BN220T, BN300T
BN50S, BN75S, BN100S, BN150S, BN220S, BN300S
BN75R, BN150R, BN300R
BU50SW, BU75SW, BU100SW, BU150SW
BU75RW, BU100RW, BU200RW, BU300RW
BU60RE, BU100RE
BU1002SW, BU3002SW
BU1002RW, BU2002RWL, BU3002RWL, BU5002RWL

Bracket for
BN100XR/BN150XR/BN240XR

## 1.4 Functional outline

- Direct connection of an uninterruptible power supply (UPS) and a network
  - By inserting into an uninterruptible power supply (UPS) this product, you can manage an uninterruptible power supply (UPS) from any computer that is not equipped with a serial port.
  - By inserting into an uninterruptible power supply (UPS) this product, you can manage an uninterruptible power supply (UPS) from a Web browser and SNMP manager software available on the market.

- Remote monitoring of the uninterruptible power supply (UPS) on the network
  - From all workstations on the intranet and the Internet, you can remotely monitor the uninterruptible power supply (UPS).

- You can set the function of SNMP / Web card and the uninterruptible power supply (UPS) from a computer on the network
  - Parameter settings for SNMP / Web card and the uninterruptible power supply (UPS) can be carried out in the Internet browser or via any of the SNMP management station. (Function as an SNMP agent can be set over a serial connection and Telnet.)
  - Display the contents of the parameter setting screen is automatically changed according to (presence or absence of output outlet control function) the contents of the function of the uninterruptible power supply (UPS), only the required setting items are displayed.

- Enhanced security features
  - It corresponds also to HTTPS and SNMPv3 in addition to HTTP and SNMPv1. (Cautions) Access by HTTPS can be accessed by Open SSL ver.2.0.Access by HTTPS cannot be performed in some browser software (Firefox etc.).

- Mail Notification
  - You can send a notification email to the address that you specified in advance in the event of a power failure, etc.

- Log function
  - The power failure (UPS), power status, battery status and uninterruptible power supply can be stored in flash memory in the product.
  - It corresponds to Syslog.

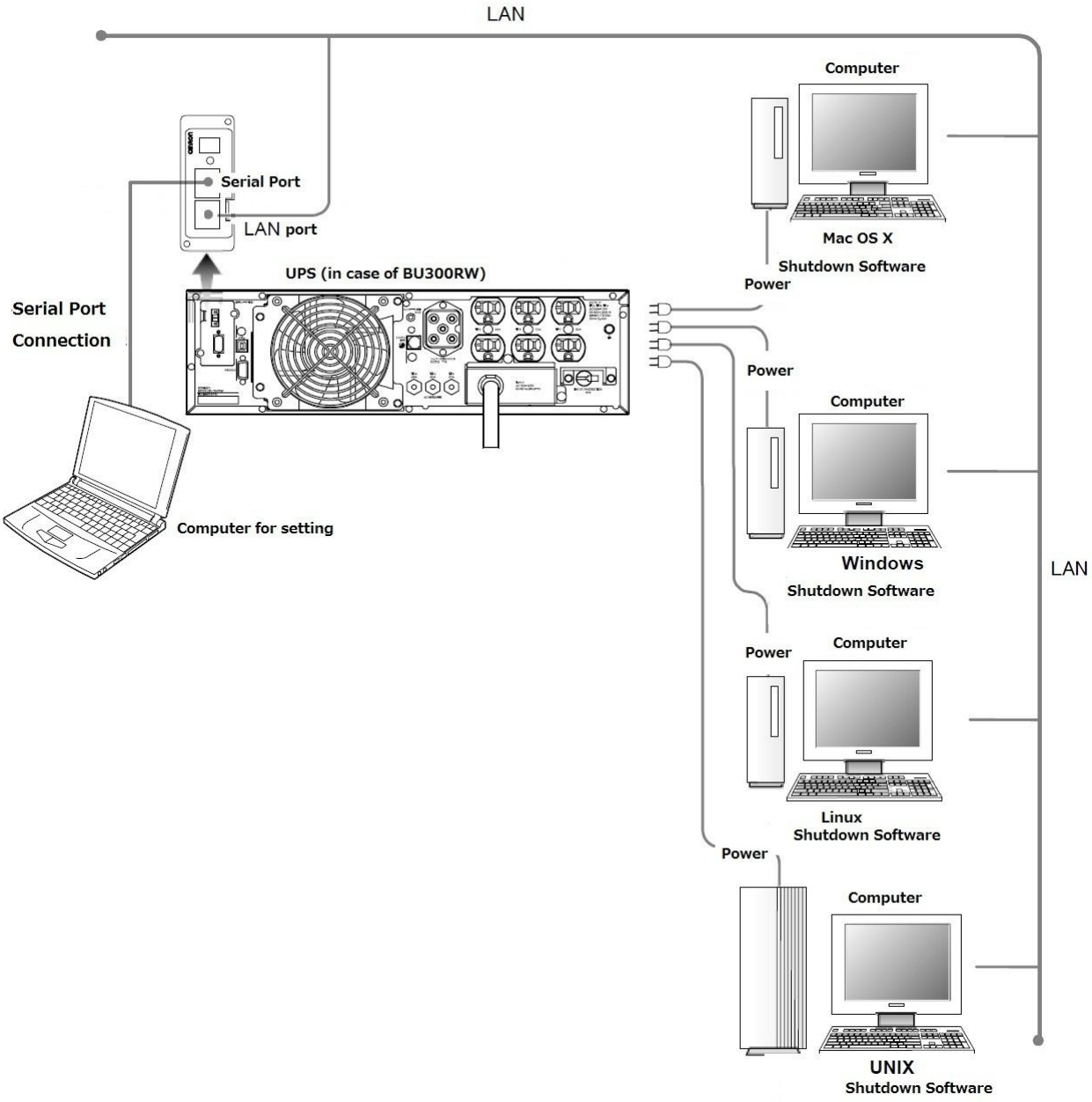
- Automatic shutdown function
  - By installing the enclosed automatic shutdown software, the predetermined shutdown which the administrator programmed beforehand, or a shutdown when serious power failure occurs is performed automatically.

- The function corresponding to Wake ON LAN
  - By registering a maximum of 32 MAC Addresses of client PC which has equipped the WakeOnLAN function, all the client PCs can be rebooted at once with a Wake ON LAN signal at the time of an uninterruptible power supply (UPS) reboot after the shutdown by the signal from an uninterruptible power supply (UPS).

- Standard MIB (RFC1628) and original MIB (swc mib) of an uninterruptible power supply (UPS) are equipped.
- Using a JAVA applet, the state of a power supply is monitored
  - By a graphical representation, the state of a power supply can be checked visually.
- Script shutdown
  - You can shut down the computer from the network by incorporating the script without using the auto-shutdown software.
- Down monitoring
  - Monitored via a network device that is connected to an uninterruptible power supply (UPS), you can stop / start the output of the UPS when an error occurs.
- **CO2** setting
  - The result of having computed the carbon-dioxide emissions of the apparatus (whole) connected to the uninterruptible power supply (UPS) is displayed.

## 1.5 System configuration

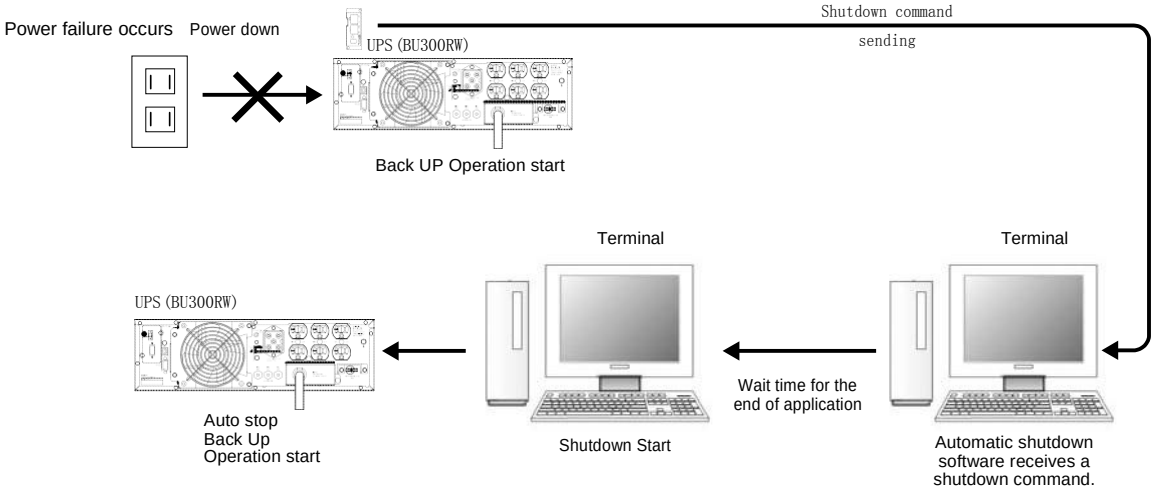
- It is possible to back up multiple computers on a network of mixed various OS, to perform the shut down during a power failure.
- System configuration example



## 1.6 About shutting down process

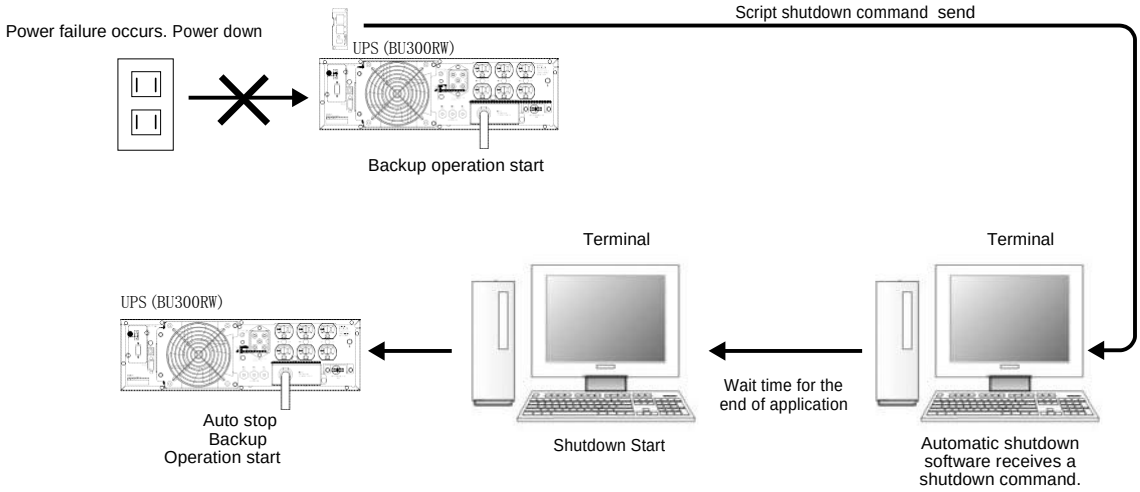
■ When you use the automatic shutdown

- If such power failure occurs, you can run the shutdown process by using a function of the automatic shutdown software. With this process, you can stop your computer safe.




■ When a script shutdown is used

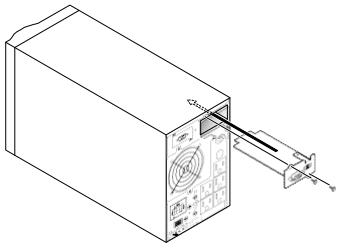
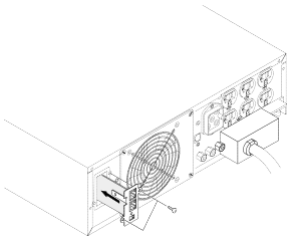
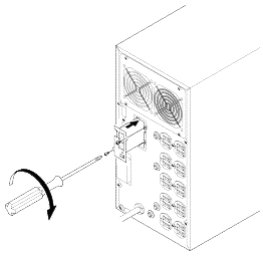
- When power failure etc. occurs, a shutdown process is executed using the function of a script shutdown. By this processing, a computer can be suspended safely.




∗ It does not mean that the shutdown is possible in the script on all devices.
Please perform a pre-operation check whenever you use this function.

# 2. Insertion of a SNMP/Web card

- Insertion procedure

| | |
|---|---|
| **1** | Please check that the power of an uninterruptible power supply (UPS) is off, and that it is in the state where AC input cable was removed from the electric socket or the terminal board, and electric power is off. Please pull out a power receptacle after turning off the "power supply" switch and being in a shutdown state, when UPS is operating (refer to the operation manual of UPS for the check of a shutdown state). |
| **2** | Please make sure that the two DIP switches on the back of the machine are turned OFF both. |
| **3** | Please remove the slot cover or contact signal input-and-output card of an uninterruptible power supply (UPS). |
| **4** | Please insert this product in the slot of an (UPS) firmly, and carry out a screw stop to it. (The position of a slot and the direction at the time of insertion change with model of an (UPS). Please refer to an (UPS) operation manual for details.<br>  <br>BU150SW<br>  <br>BU200RW/BU300RW<br>  <br>BN220S/BN300S |
| **5** | Please connect an uninterruptible power supply (UPS) with a power receptacle, and turn ON a "power supply" switch. |

## Attention (attachment and removal)

When you perform insertion and removal of this product , be sure to turn off the main part of an uninterruptible power supply (UPS) and connection apparatus, and to carry out in the state "AC input" plug is pulled out from a power receptacle.

- There is fear of an electric shock.

---

When you perform attachment and removal of this product to an uninterruptible power supply (UPS), please work by installing an uninterruptible power supply (UPS) in the stable place and the direction which is not reversed.

- It may be injured if a falling and tumble occur.

---

It is being unable to touch the parts on a substrate end face or a substrate, when performing the insertion and removal of this product.

- Since a substrate end face and parts are sharp, it may be injured if it touches.
- There is a possibility of burning oneself if parts are high temperature.
- Parts sensitive to static electricity are being used for this product.

Please do not touch the contact port and other parts of a connector in particularly empty-handed.

# 3. Network settings for SNMP / Web card

## 3.1 Basic information about the IP address setting

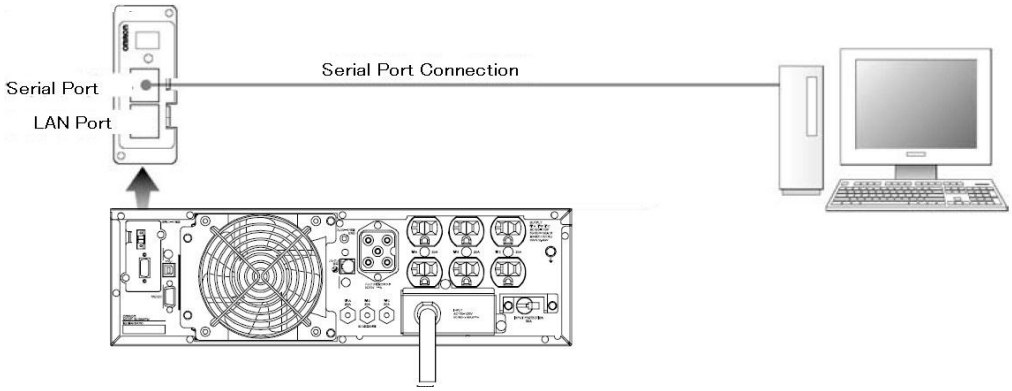
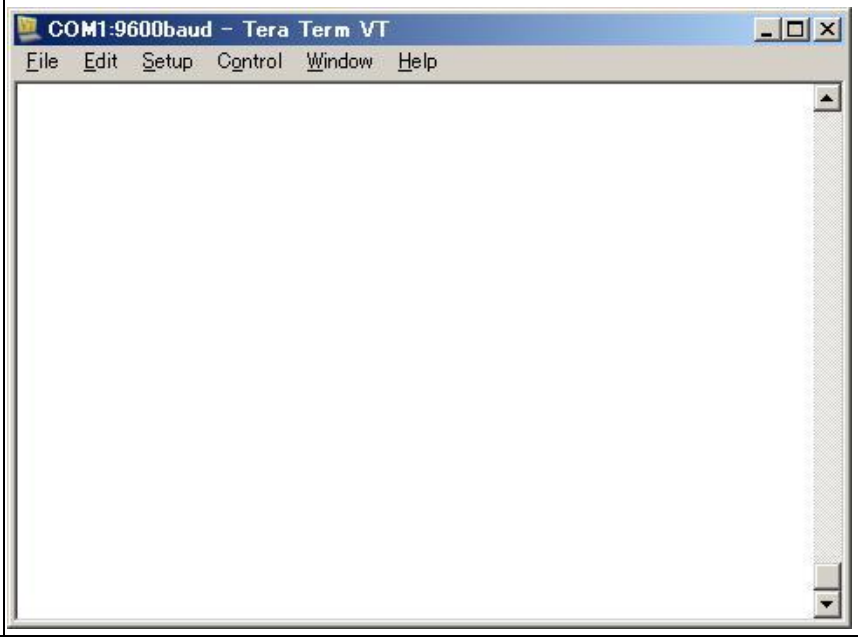
A setup for using this product on the target network is performed.
The fixed IP address of the initial value of this product is set as "192.168.2.150."
Please make a change of an fixed IP address from [SMNP-Web-Card Configuration Utility Main menu] of a "method 1: via serial port “or a "method 2: via Telnet"
Settings through a Web browser can be useful after performing a set of network-related once.

Please refer to: "3.3 Network Configuration Method 2 :via Telnet " or " 3.2 Network Configuration Method 1: via serial port "

This book explains Windows8.1 to an example. When you use other OS's, please perform a setup for the following contents to reference.

## 3.2 Network Configuration Method 1: via serial port

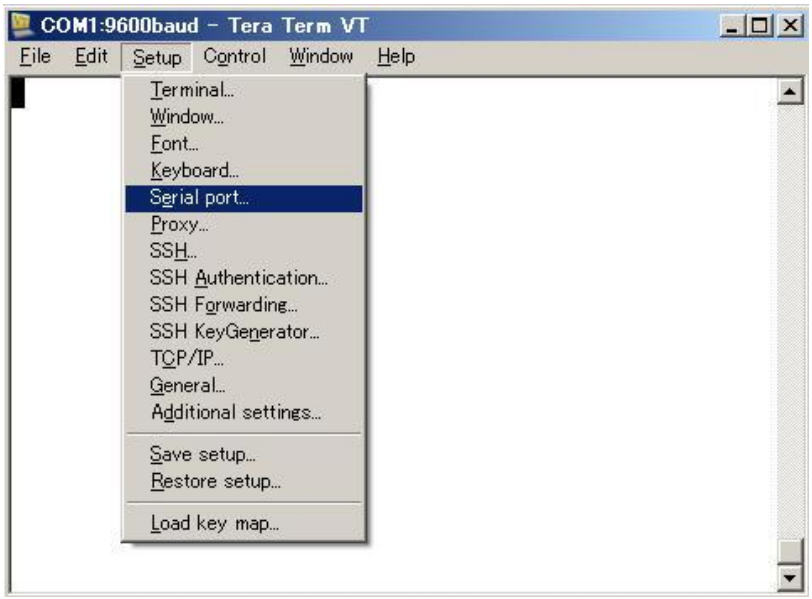
■ Setup steps

| | |
|---|---|
| **1** | Please turn the power switch ON for setting computer. |
| **2** | You can use the serial connection cable, please connect the configuration computer and the product attached to the uninterruptible power supply (UPS)<br>  |
| **3** | Please download Tera Term Pro from Internet, and create shortcut to a desktop.*1 |
| **4** | Please double-click the shortcut of Tera Term Pro created to the desktop.<br>  |

*1 There are cases where the terminal software is not installed by the OS to be used. In that case, please set up after preparation separately.

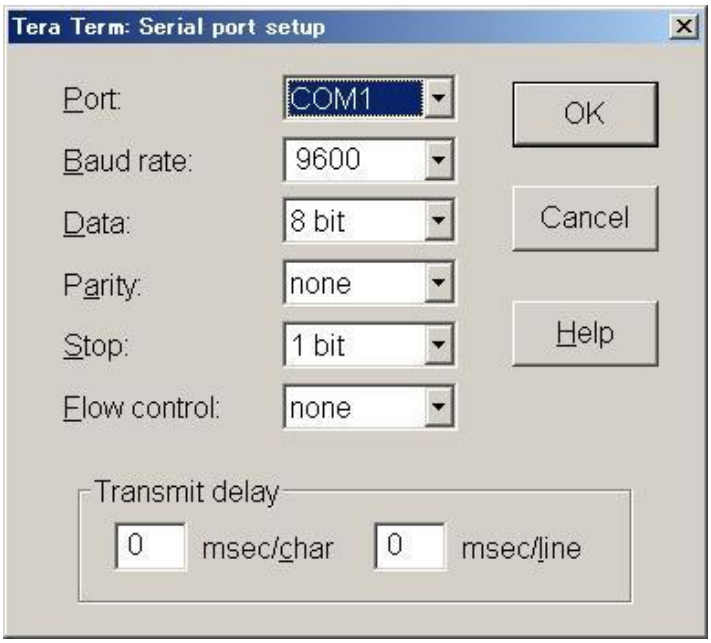
**5**

Please click [Setup] → [Serial port] from Tera Term Menu.




**6**

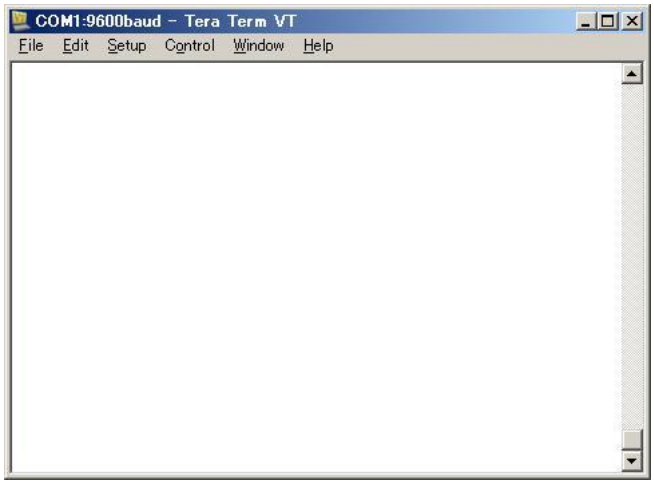
Since the screen for setting up the property of the set-up COM port is displayed, please set up as follows.




| | |
|---|---|
| Port | Com1 |
| Baud rate | 9600 |
| Data | 8 |
| Parity | None |
| Stop | 1 bit |
| Flow control | None |

**7**

A click of [OK] will set up the screen of Tera Term.




**8**

Please press the Enter key.

**9**

Next, since the following password entry screens

are displayed, please input "admin"

```
+=============================================================================+
|            [ SNMP-Web-Card Configuration Utility Main menu ]                |
+=============================================================================+

Enter Password: *****
```

**10**

The item of [SNMP-Web-Card Configuration Utility Main menu] is displayed.
If "1" is inputted and ↵ is pushed, [SNMP-Web-Card Configuration Menu] will be displayed.

```
+=============================================================================+
|            [ SNMP-Web-Card Configuration Utility Main menu ]                |
+=============================================================================+
   1. SNMP-Web-Card Configuration
   2. UPS Parameters
   3. Access Control
   4. Trap Receiver
   5. Main Window
   6. UPS Information Window
   7. Reset Configuration To Default
   8. Restart Agent
   0. Exit

Please Enter Your Choice => 1


+=============================================================================+
|                    [ SNMP-Web-Card Configuration Menu ]                     |
+=============================================================================+
   1. System Group
   2. Control Group
   3. Parameter Group
   4. Email Group
   5. Script shutdown Group
   6. Same setting with : 0.0.0.0
   0. Return to previous menu

Please Enter Your Choice =>
```

**11** Furthermore, please input "1" and push ↵.

```
+=============================================================================+
|                    [ SNMP-Web-Card Configuration Menu ]                     |
+=============================================================================+
   1. System Group
   2. Control Group
   3. Parameter Group
   4. Email Group
   5. Script shutdown Group
   6. Same setting with : 0.0.0.0
   0. Return to previous menu

Please Enter Your Choice => 1
```

**12** [System Group Configuration Menu] is displayed and the list of the network-related present preset values of a SNMP/Web card is displayed.

```
+=============================================================================+
|                    [ System Group Configuration Menu ]                      |
+=============================================================================+
      SNMP Agent Version : 3.00 (Release Date: 2014-07-18)
      Ethernet address   : 00 E0 D8 FF A7 6D
   1. Ip Address         : 192.168.2.150
   2. Gateway Address    : 192.168.2.1
   3. Network Mask       : 255.255.255.0
   4. Date and Time
   0. Return to previous menu

Please Enter Your Choice =>
```

After inputting the number of an item to change, please push ↵.
Next, after inputting a value and completing an input, please push ↵.

**13** Please operate it according to a display and end a setting menu.

**14** Click the [file] of a menu bar and click [exit].
It is possible to set up almost all functions via a serial port except for a shutdown-related function.

Please refer to the operation manual in enclosed CD-ROM for the details of the contents of a setting.

## 3.3 Network Configuration Method 2: via telnet

Please set up TCP/IP by computer for a setup as follows.

■ Setup steps of TCP/IP

**1**

Please choose the [control panel] → [network and Internet] after clicking [settings].

**2**

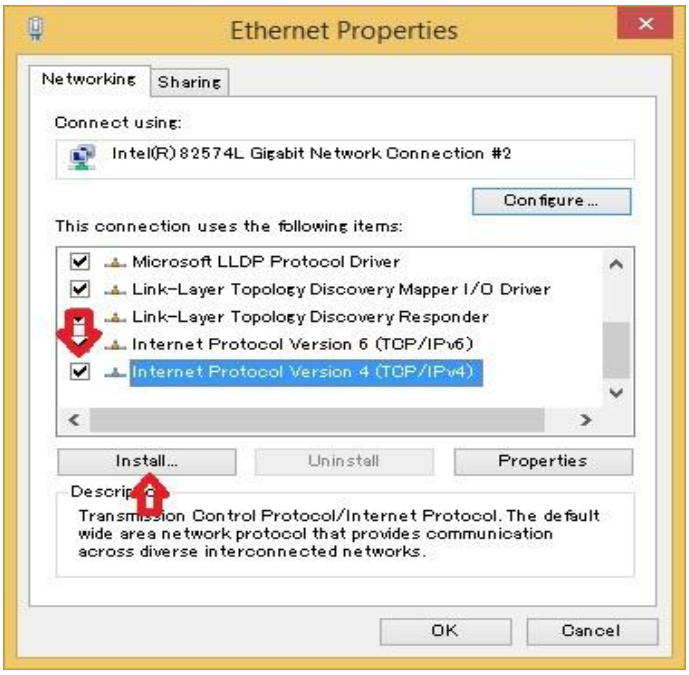
Next, click [network and a sharing center] → [Connections], then click [Properties].

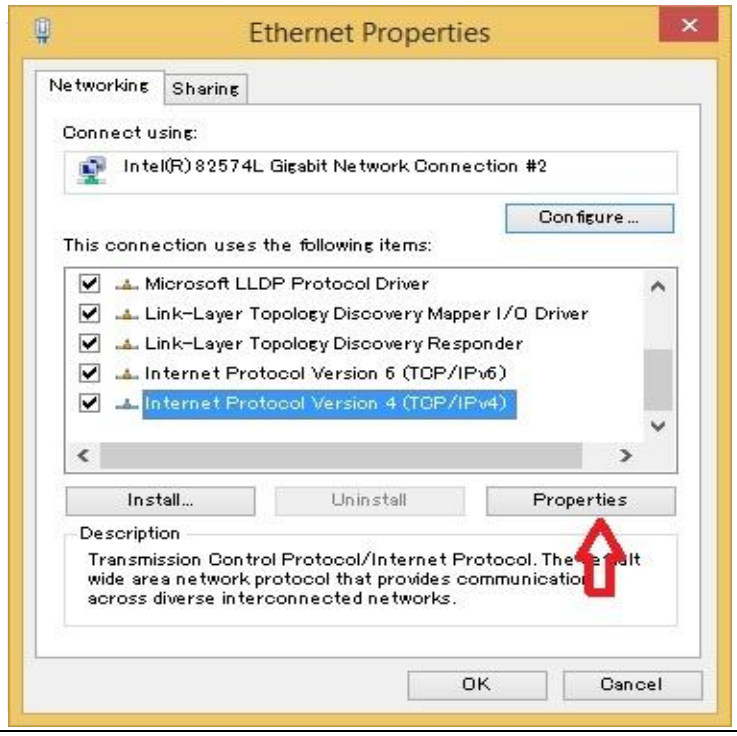
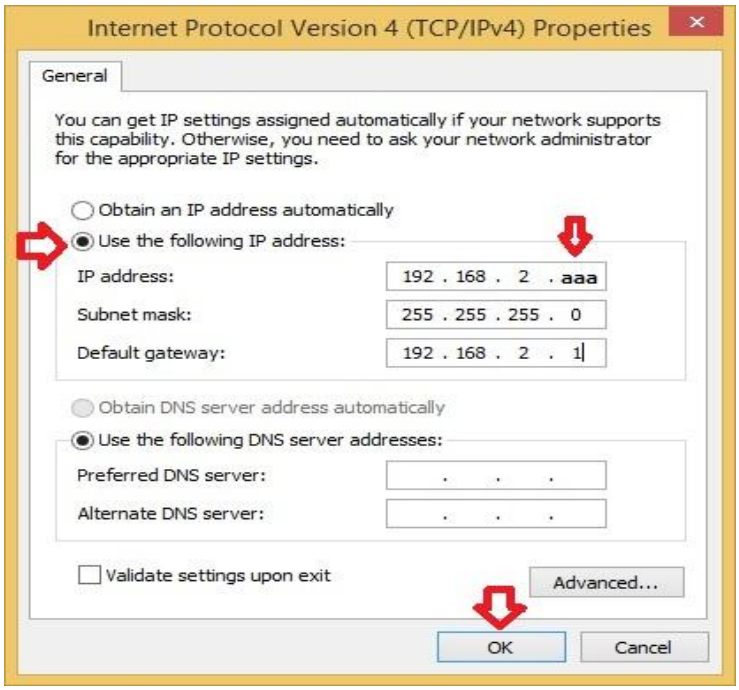
| | |
|---|---|
| INFORMATION | When there is no[local-area connection], the LAN card (adapter) is not installed. Please perform this operation after installing a LAN card (adapter). |

**3**

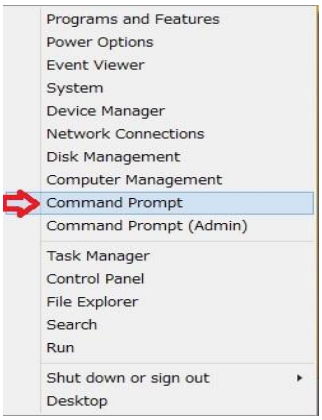
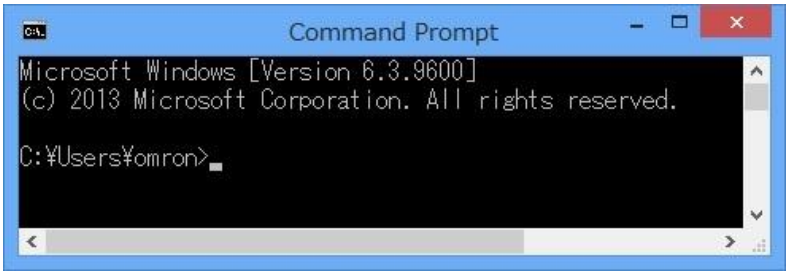
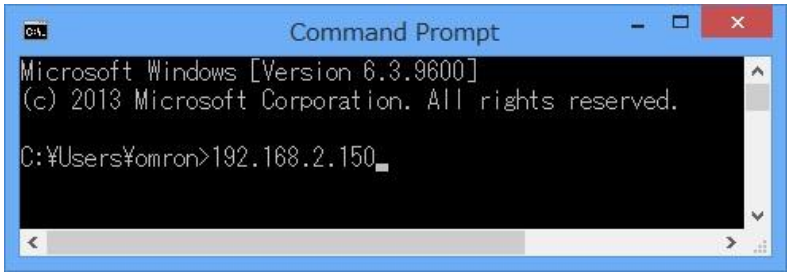
Please check that [the Internet protocol version 4] (TCP/IP V4) is checked by list of a component.

| | |
|---|---|
| INFORMATION | • Please check, when the Internet protocol version 4 (TCP/IPv4) is not checked.<br>• When the Internet protocol version 4 (TCP/IPv4) is not displayed, click [installation] and install TCP/IP. |



| | |
|---|---|
| **4** | Please click a [property] after choosing [the Internet protocol version 4 (TCP/IP)].<br>  <br> |
| **5** | Check [Use the following address]. Please set up the IP address column, the subnet mask column, and the default gateway column as follows, and click [OK].<br><br>IP address: 192.168.2.aaa<br>Subnet mask: 255.255.255.0<br>Default gateway: 192.168.2.1<br>Please put the arbitrary number of 1~254 into aaa.<br><br>  <br> |
| **6** | Please click [OK] after a setup and return to an initial screen. |

■ Configuration procedures in this product

| | |
|---|---|
| **1** | Please connect the SNMP/Web card inserted in the uninterruptible power supply (UPS) to a network. |
| **2** | Next, please perform a Windows command prompt according to the following procedures. [Start] -> [Command prompt].<br>  |
| **3** | The following command prompt screens are displayed.<br>  |
| **4** | Please input the unique IP address (initial value: 192.168.2.150) of a SNMP/Web card. Please input by a command prompt as follows.<br><br>Input example)<br>Telnet ␣192.168.2.150↵<br>*When the IP address of a SNMP/Web card is changed, please input the IP address.<br>  |
| **5** | Next, please input "admin ↵" in a password entry screen. |

| | |
|---|---|
| **6** | Subsequent setup steps are the same as that of the case "method 1: Via a serial port." Please perform a setup from the following screens.<br> <br> |
| **7** | Please return a network setup of the computer for a setup if needed. |

## 3.4 The contents of a setting via serial port / telnet

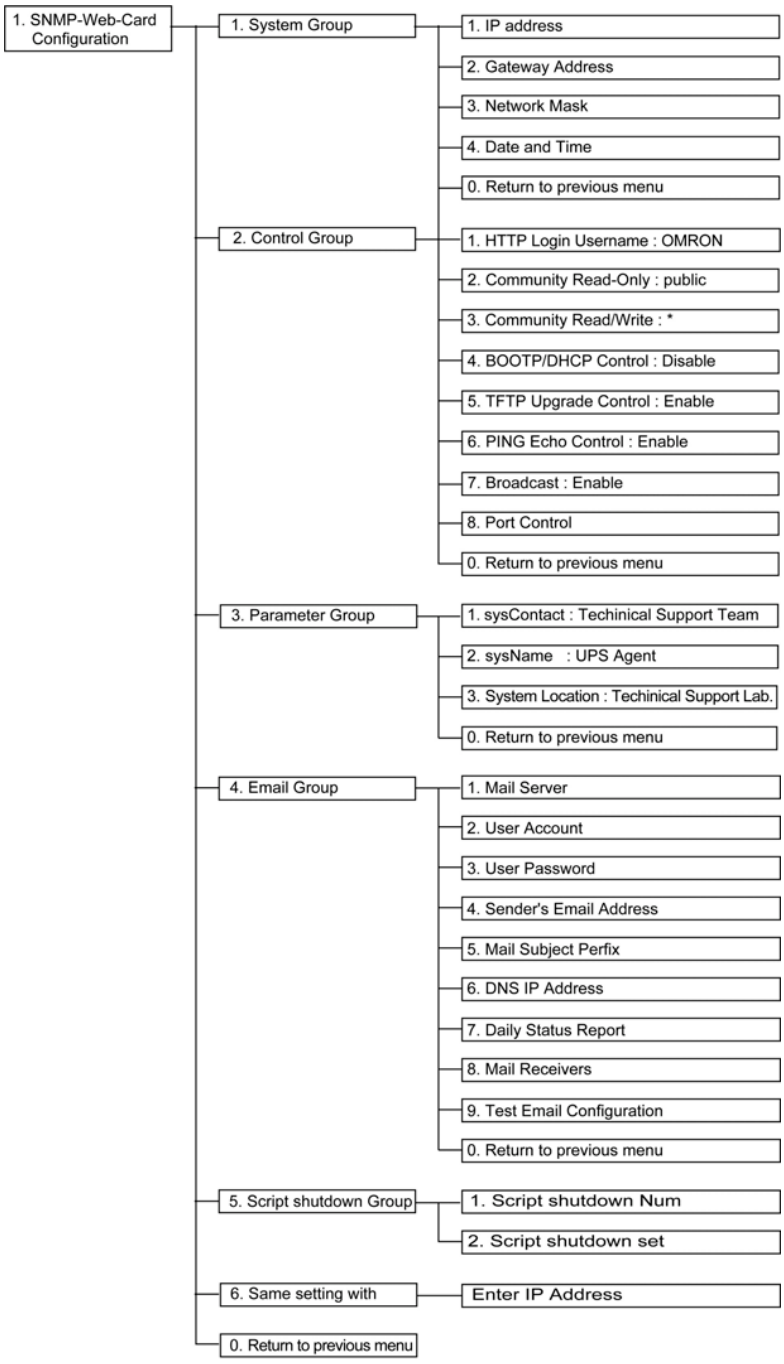
■ When setting up via a serial port/Telnet

The following [SNMP-Web-Card Configuration Utility Main menu] is used. It is possible to set up almost all functions via a serial port except for a shutdown-related function.

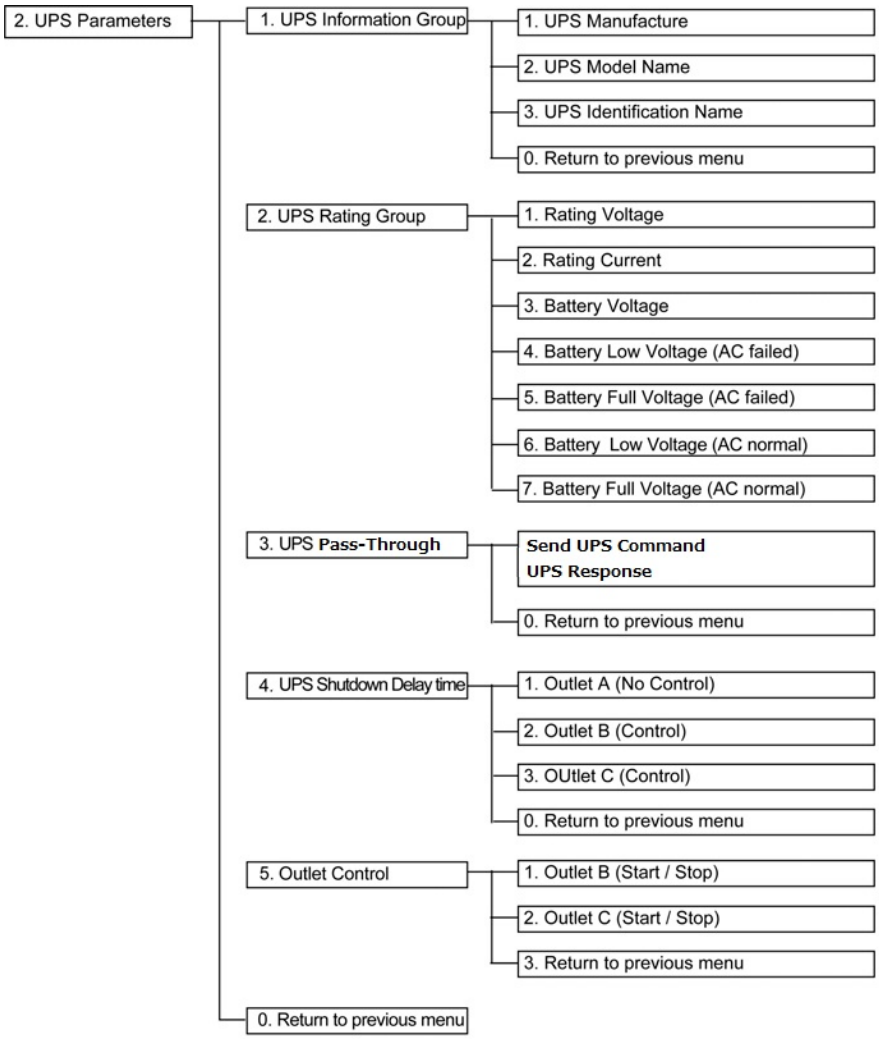
To set up, it is necessary to certainly carry out by serial connection or Telnet. (*Setting recommendation by the connection via Telnet)

■ The contents of a setting of [SNMP-Web-Card Configuration Utility Main menu]

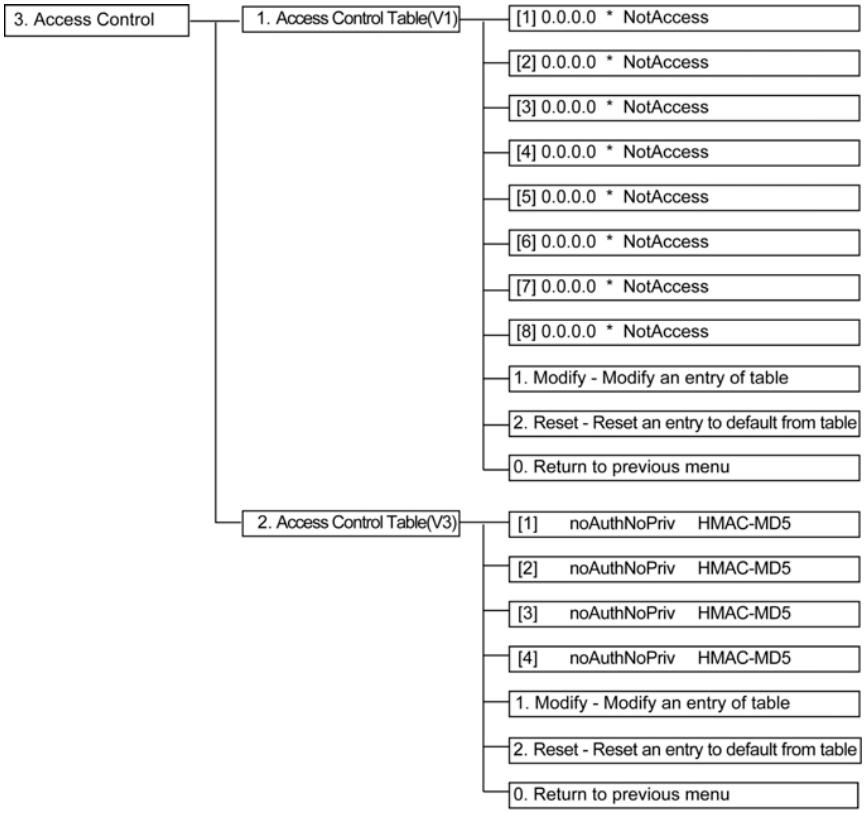
- 1. SNMP-Web-Card Configuration



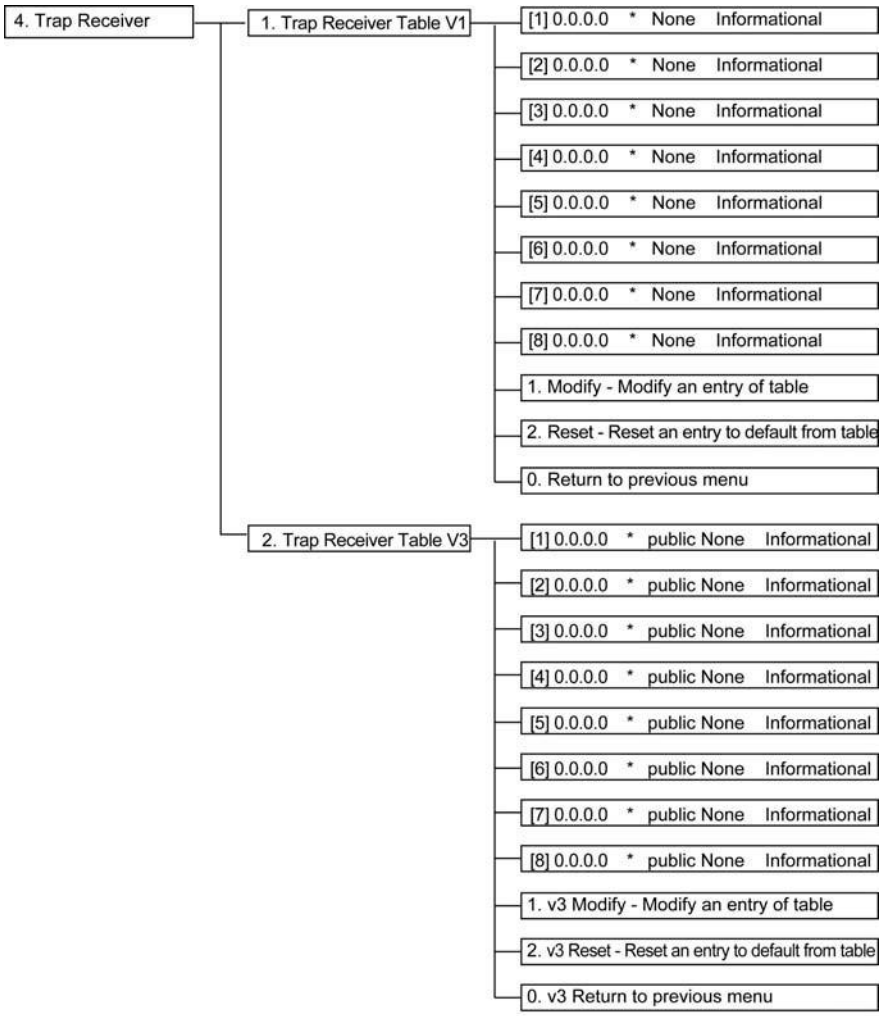
- 2. Uninterruptible power supply(UPS)Parameters



- 3. Access Control Table



- 4. Trap Receiver Table



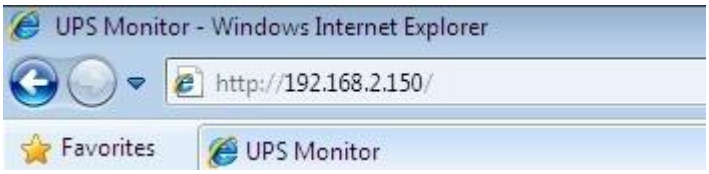

- 5. Main Window
- 6. Reset Configuration To Default
- 7. Restart Agent
- 0. Exit

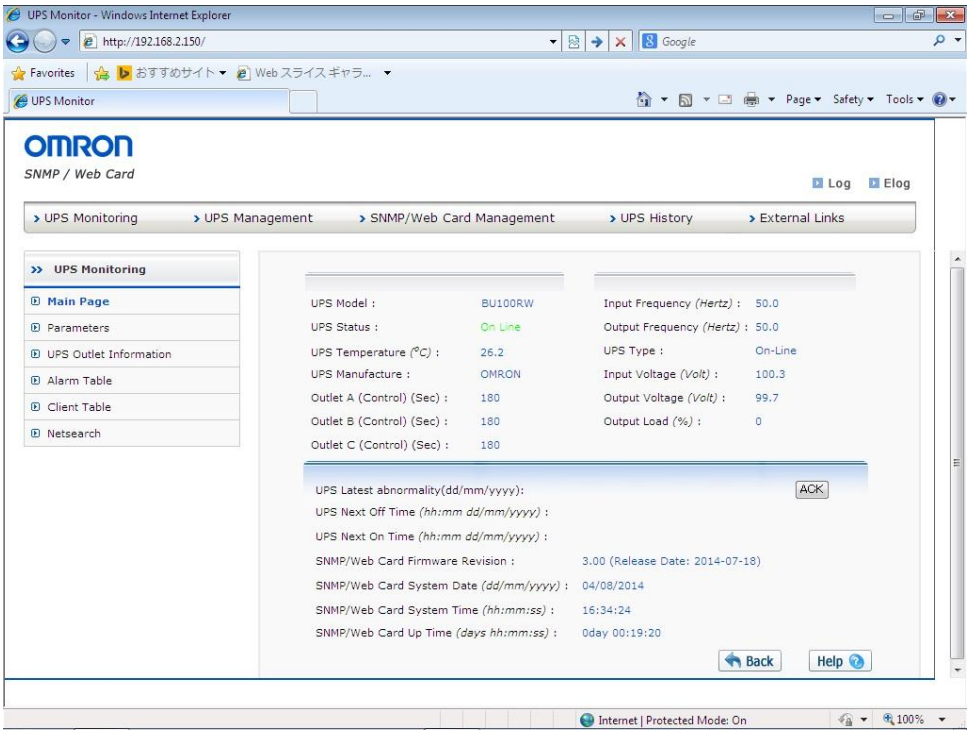
## 3.5 Network Configuration Method 3: via web browser

In the following cases, it is possible to set up a SNMP/Web card via a web browser.

- When an IP address is acquired from a DHCP server
- When a setup of an IP address is completed via a serial port or Telnet

■ Setup steps

| | |
|---|---|
| **1** | Please connect the SNMP/Web card inserted in the uninterruptible power supply (UPS) to a network. |
| **2** | When you acquire an IP address from a DHCP server, please check the assigned IP address by the router or a server. |
| **3** | Next, a web browser is started and the IP address (initial value: 192.168.2.150) of this product is inputted into an address bar. Please push ↵ .<br>Input example)<br>IP address is the case of 192.168. 2.150<br>  |
| **4** | A login screen is displayed. Please enter a user name (Factory default: “OMRON”) and a password (Factory default: “admin”).<br>Next, please push OK.<br> |

| | |
|---|---|
| **5** | The initial screen of a SNMP/Web card is displayed.<br>  <br> |

# 4. Installation of automatic shutdown software

By installing PowerAct Pro Slave Agent of enclosed automatic shutdown software in this product, the automatic shutdown by the time of power failure or a schedule is possible.
For installation instructions, please refer to the instruction manual of the automatic shutdown software.

- Please check our homepage (https://www.oss.omron.co.jp/ups/) for the newest product information.

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