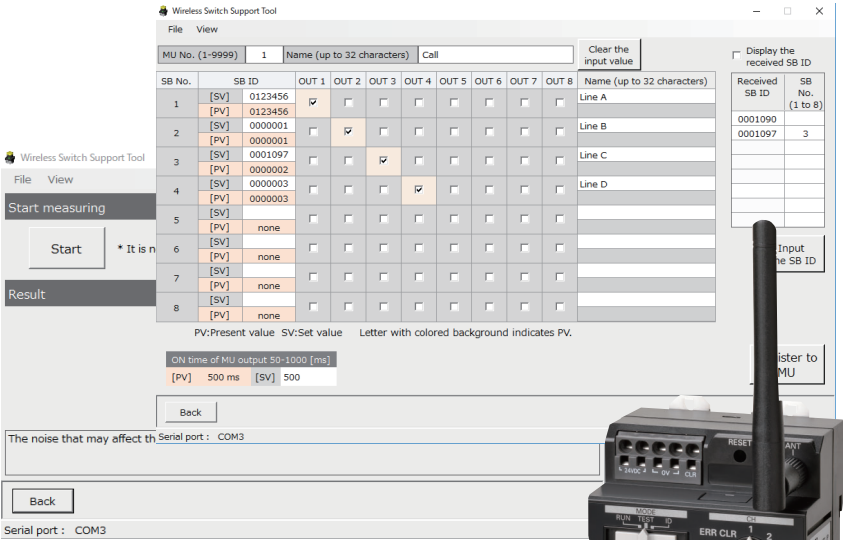


## Wireless Switch Support Tool

### Operation Manual



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# Safety Precautions





## Definition of Precautionary Information

The following notation is used in this manual to provide precautions required to ensure safe usage of the Wireless Switch Support Tool and A2W Wireless Pushbutton Switch.

The safety precautions that are provided are extremely important to safety. Always read and heed the information provided in all safety precautions.

 <b>Caution</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or property damage.
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## Symbols

- 
- |  |   |
|--|---|
|  | The triangle symbol indicates precautions (including warnings). The specific operation is shown in the triangle and explained in text. This example indicates a general precaution. |
|--|---|
- 
- |   |  |
|---|--|
|  | The triangle symbol indicates precautions (including warnings). The specific operation is shown in the triangle and explained in text. This example indicates a precaution for electric shock. |
|---|--|
- 
- |   |   |
|---|---|
|  | Indicates non-specific general prohibitions. The specific operation is shown in the circle and explained in text. This example indicates a disassembly prohibition. |
|---|---|
- 
- |   |  |
|---|--|
|  | The filled circle symbol indicates operations that you must do. The specific operation is shown in the circle and explained in text. This example shows a general precaution for something that you must do. |
|---|--|
-

 **Caution**

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Do not use this product without a protection circuit. Otherwise it may result in heavy injuries or damage on life or property due to malfunction.

Dual or triple safety protection circuits, such as emergency stop, interlock, or limit circuit, must be configured by external control circuit so that the system should operate on safe side even if a failure of this product or an error due to an external factor occurred.



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This product is used radio waves for communications, communications may be interrupted. Even in that case, consider the system to be safe.



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Do not use this product close to any medical equipment such as a pacemaker as it may affect operation of such medical equipment and may result in heavy injuries.



# Precautions for Safe Use

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Do not use this product near a device that may function abnormally due to the radio waves emitted by this product.

# Precautions for Correct Use

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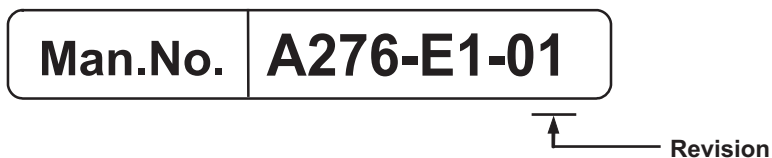
- Refer to the Wireless Pushbutton Switch A2W User's Manual (Man. No. A265) and the operation manual supplied with the Master Unit.
- You will have to make the settings during installation or replacement. Make the settings correctly according to the manual, perform the communications test in advance, and make sure that the system operates normally before using it.
- The use of this product at other than the designated frequency is prohibited by the Radio Law. Use this product after confirming the frequency and product type according to the country of use.
- If the cable is disconnected during setup, be sure to reconfirm the setting contents. Be careful not to remove the cable during setting.
- Do not connect or disconnect the USB-Serial Conversion Cable while communications are in progress. Product faults or malfunction may occur.
- Connect the cable to the back of the setting tool port so that the cable does not come off during use.
- Use the specified USB - Serial Conversion Cable. Also, if you extend the USB part with an extension cable and use it, it may not be able to communicate properly due to noise or other effects.
- Do not bend the cable past its natural bending radius, or pull on the cable with under force. Doing so may cause the wire disconnection.
- If you register a Slave button to the Master Unit in an environment where another wireless pushbutton switch system is operating around it, it can be erroneously set. Therefore, when registering a Slave button, perform in an environment where the system of another wireless pushbutton switch is not operated.
- Install this product at a location where there is an unobstructed view between the wireless push buttons and the Master Unit.
- Do not mount the antenna at a location surrounded by metal, such as inside the panel.
- The Radio Law prohibits connecting an antenna other than that designated. Never change the antenna.
- Mount the antenna while ensuring that it is not parallel with the wiring or metal plate. Also, ensure a safe distance from the wiring and metal plate.
- When mounting the designated antenna with magnet, do not install the antenna cable together with the power line or electric cables. Also, do not forcefully pull or bend the cable, or keep any object on top.
- Do not pull or grab the antenna while carrying or handling the product.
- To ensure the antenna does not come off during operation, attach it right into the connector.
- Do not use the product under the following locations:
  - Locations where the product may come into contact with water, oil, or chemicals.
  - Locations subject to static electricity, excessive noise, or electric fields.
  - Where the influence of vibration and shock is large.
  - Locations where large amounts of dust or dirt are present.
- Storage of this product must be within the specified environment. Allow the product to warm up to room temperature for at least 3 hours after it has been stored at -10°C or lower.

- Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.
- Do not use this product at a location with an extremely high humidity, or near a television or radio, or an object from which sparks may fly out such as a motor or drill, or even near fluorescent lighting.
- Always turn OFF the power before replacing the wiring or devices.
- Do not handle with wet hands.
- Be aware that if you operate the mode settings switch of the actual Master Unit while selecting the *Display the received SB ID* Check Box from the Wireless Switch Support Tool, a communication error occurs.
- Be aware that the set time, displayed by checking "ON" in the ON time of MU output under the View Menu, is registered in Master Unit, even when you click the **Register to MU** Button without *ON time of MU output* displayed below the Slave button registration and output assignment table,
- Be aware that if you operate the mode setting switch of the actual Master Unit while measuring the wireless communications environment from the Wireless Switch Support Tool, a communications error will occur.
- The communication test checks the Master Unit periodically for the latest received data from the Wireless Switch Support Tool and displays the latest received data from the Slave button if it is available. However, if the Master Unit receives the operation result of the Slave button at intervals shorter than the interval to be periodically acquired, the value is overwritten before the Wireless Switch Support Tool retrieves the reception result. As a result, be aware that the reception result from the Slave button may be missed.
- During the communications test from the Wireless Switch Support Tool, do not open a tab-delimited text file (.txt) of the reception result log until you click the **Start** Button and click the **Complete** Button. If you open it, you cannot write the result to a file when receiving data, so you cannot implement Wireless Test correctly.
- Be aware that if you operate the mode setting switch of the actual Master Unit while measuring the wireless communications environment from the Wireless Switch Support Tool, a communications error will occur.
- Set the font size on your computer screen to 100% (default). Wireless Switch Support Tool display screen may not be displayed correctly if it is set to expand.  
For details on how to set the character size of your computer, refer to the manual of your Windows.

# Revision History

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A manual revision code appears as a suffix to the catalog number on the front and back covers of the manual.



Revision code	Date	Revised content
A	April 2018	Original production

## Related Documents

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For details on the USB-Serial Conversion Cable, refer to the Instruction Manual that is provided with the product.





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# 1

## Overview

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# 1-1 Overview

## 1-1-1 What is the Wireless Switch Support Tool?

Wireless Switch Support Tool is a host tool for the A2W wireless pushbutton switches system.

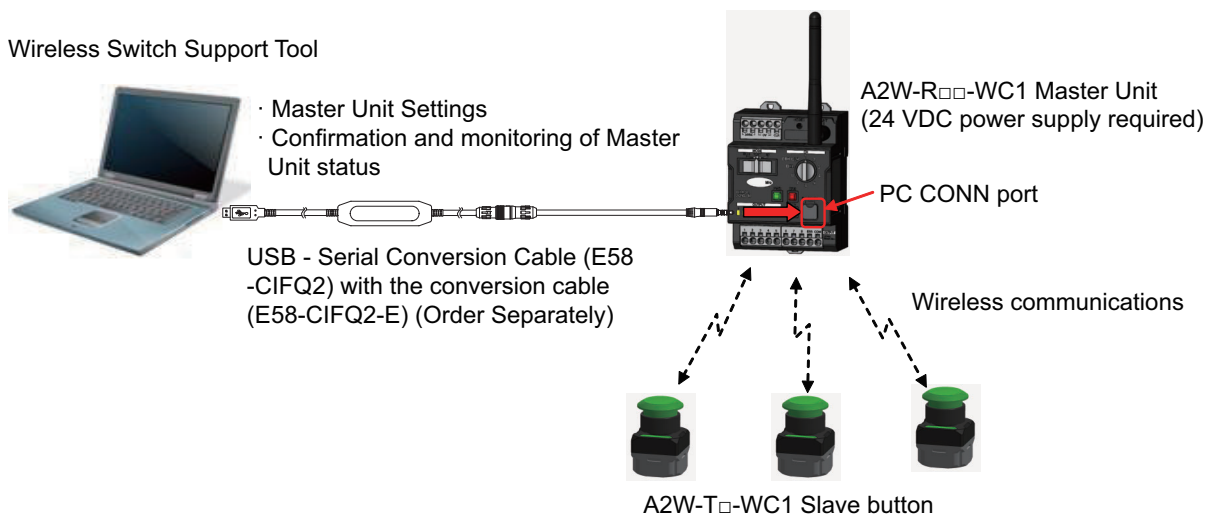
This tool enables you to set up the Master Unit and check and monitor the environment to be used as follows.

- Checks and changes the status of Slave button registration and output assignment settings in Master Unit ,or sets them newly
- Set output one-shot time of the Master Unit
- Estimate the radio field strength around the Master Unit (ED scan)
- Executing Wireless Test, and displaying reception result logs thereby with saving tab-delimited text file
- Displaying Master Unit's current operation mode and operating time

## 1-1-2 Connection Configuration

Connect the computer (Wireless Switch Support Tool) one-on-one to the Master Unit using the USB - Serial Conversion Cable (E58 -CIFQ2) with the conversion cable (E58-CIFQ2-E).

Connect to the front "PC CONN" port of Master Unit.



Note Install the driver for USB to serial conversion cable to computer before using USB to serial conversion cable with the conversion cable.

### 1-1-3 Wireless Switch Support Tool Functions and Specifications

Item		Description		
Target device		Wireless pushbutton switch A2W-R□□-WC1 Master Unit		
Project registration unit		One Master Unit per project		
Master Unit Settings	Slave buttons registration and output assignment settings	Slave buttons registration and output assignment settings	Slave button ID setting	Manual input, or acquiring the ID value by actually operating the Slave button
			Output Assignment Setting	Check specification
		Confirmation of current setting state of the Slave buttons registration and output assignment settings	Monitor Slave button ID	Displayed in Slave button ID Column
			Monitoring the output assignment	Color display
		Saving to or reading from a setup file (tab-delimited text file)		Supported.
Set output one-shot time of the Master Unit		50 to 1000 ms (default 500 ms)		
Confirm and monitor the operating environment	Survey of radio field strength around Master Unit (ED scan)		Starting method: button operation Result: peak value (PK) of reception strength, average value (AV) of reception strength	
	Wireless communications test	Display reception result	Starting method: <b>Start</b> Button operation Result: Log display of the following reception result from Slave buttons Contents: Time, Slave button ID, and Receive radio field strength Number of indicators: Maximum 100	
		Save tab-delimited text file of received result	Starting method: <b>Start</b> Button operation Result: logs of the reception result (for each operation of the <b>Start</b> Button) are saved in a tab-delimited text file	
	Status confirmation	Confirm operating mode	RUN mode, TEST mode, ID mode, Master Unit error	
		Confirm operating time	0 to 99,990 hours (in units of 10 hours)	
	Operation	Software reset of Master Unit	Restore the operating mode of the Master Unit to the front mode settings switch state	
		Reset to factory default	Reset the Master Unit to factory default (possible only when the Master Unit error LED is lit in red)	

Content of file created by Wireless Switch Support Tool

File type	File name	Extension	Contents	Default save location
Setup file	User specified Default: WirelessSwitchSupportTool_SettingFile_jp or WirelessSwitchSupportTool_SettingFile_en  Note The file name will be changed according to the language specified during installation.	.txt	Tab-delimited text file including the following <ul style="list-style-type: none"> <li>Slave buttons registration and output assignment settings</li> <li>Setting of one-shot output time of Master Unit</li> </ul>	C:\OMRON\Wireless Switch Support Tool\DATA
Wireless test results file	Time stamp (yyyymmddhhmmss) .wirelesstes	.txt	Tab-delimited text file including the following <ul style="list-style-type: none"> <li>Reception time</li> <li>Slave button ID</li> <li>Received field strength</li> </ul>	C:\OMRON\Wireless Switch Support Tool\DATA
ED scan result file	Time stamp (yyyymmddhhmmss) .edscan	.txt	Tab-delimited text file including the following <ul style="list-style-type: none"> <li>ED scan detailed result</li> </ul>	C:\OMRON\Wireless Switch Support Tool\DATA

## 1-1-4 Operating environment of Wireless Switch Support Tool

Function Name	Description
OS	Windows 10 (32 bit / 64 bit) Windows 8.1 (32 bit / 64 bit) Windows 7 (32 bit / 64 bit)
CPU	1 GHz or more, 32 bit or 64 bit processor
Memory	1 GB or more, or 2 GB or more (in the case of 64 bits)
Disk reserved area capacity	16 GB or more, or 20 GB or more (in the case of 64 bits)
Monitor resolution	1024 × 768 (XGA), High Color 16 bits or more
.NET	.NET Framework 4 (Install if not installed)
Language	Japanese, English
Communications port	Communications port USB (USB 2.0 compatible)
Applicable cable	USB - Serial Conversion Cable (E58-CIFQ2) with the conversion cable (E58-CIFQ2-E)
Communications driver to use	Driver for E58 (USB - Serial Conversion Cable, USB - infrared conversion cable) (Note: Hereafter, it is abbreviated as "Driver for USB-Serial Conversion Cable").



### Precautions for Correct Use

Set the font size on your computer screen to 100% (default). Wireless Switch Support Tool display screen may not be displayed correctly if it is set to expand.

For details on how to set the character size of your computer, refer to the manual of your Windows.





# Basic procedures

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2-1	Basic procedures .....	2-2
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# 2-1 Basic procedures

Procedures

(Installation and Wiring)

Install and wire the A2W Wireless pushbutton switch system



Procedures 1. Setup of this tool

Download the driver for the USB-Serial Conversion Cable and the Wireless Switch Support Tool together



Install the driver for the USB-Serial Conversion Cable and the Wireless Switch Support Tool together



Procedures 2. Master Unit settings

Connect this tool to the Master Unit using USB to serial conversion cable with the conversion cable



Start Wireless Switch Support Tool



New use	Already use
Set the registration and output assignment of the Slave buttons	Confirm the current setting status of the registration and output assignment of Slave buttons
	Change the registration and output assignment settings of Slave buttons



(If necessary) Set the one-shot output time of the Master Unit



Transfer the settings to the Master Unit



Estimate the radio field strength around the Master Unit (ED scan)



Wireless Test



Switch the mode settings switch of the Master Unit to **RUN** Button.

Procedures 3. Confirmation and monitoring of the Master Unit status



# Screen transition

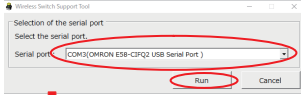
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3-1 Screen transition ..... 3-2

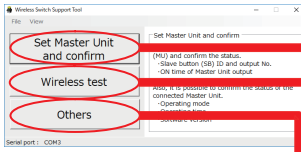
# 3-1 Screen transition

The screen transition after starting Wireless Switch Support Tool is as follows.

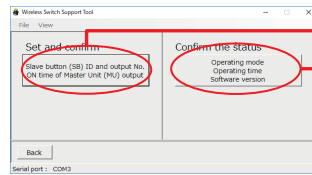
COM port connection screen



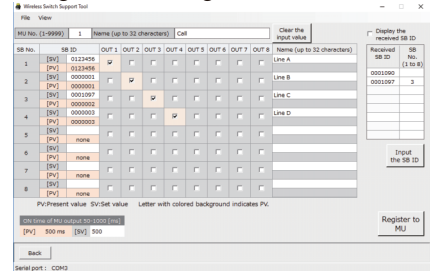
Startup screen



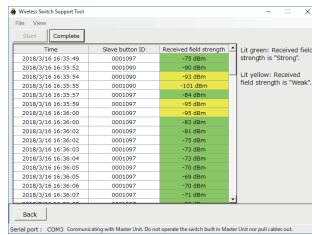
Set Master Unit and confirm screen



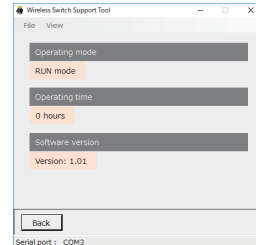
Slave buttons registration and output assignment settings screen



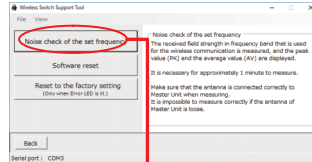
Wireless test screen



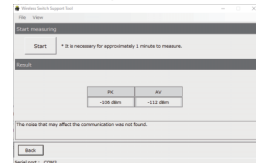
Confirm the status screen



Other operation screen



Noise check of the set frequency (ED scan)





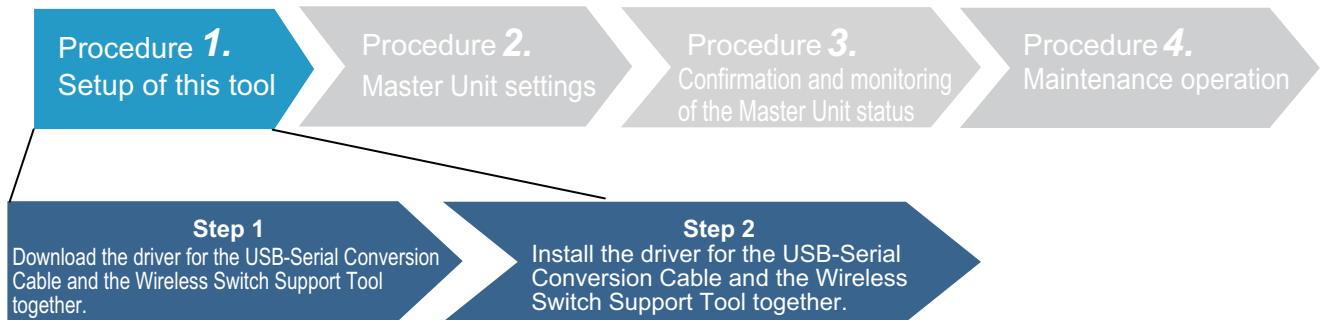
# Setup of this tool

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4-1	Setup of this tool .....	4-2
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## 4-1 Setup of this tool



The following work is necessary only when using this tool for the first time.

### Step 1 Download the driver for the USB-Serial Conversion Cable and the Wireless Switch Support Tool together.

Download both the USB - serial conversion cable driver and Wireless Switch Support Tool from OMRON website: (<http://www.ia.omron.com/>), and unzip it to a desktop or the like.



### Step 2 Install the driver for the USB-Serial Conversion Cable and the Wireless Switch Support Tool together.

#### Install the driver to enable using the E58-CIFQ2 USB-Serial Conversion Cable with the personal computer.

When using E58-CIFQ2, install the driver separately for each USB port.

Note The E58-CIFQ2 will be assigned a COM port number for each USB port of the personal computer.

##### ● Introduction

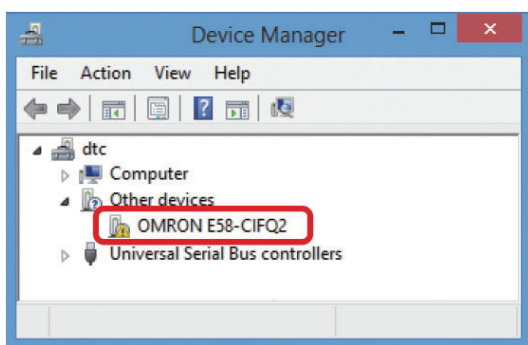
- 1** Prepare the USB - serial conversion cable (E58-CIFQ2 + conversion cable (E58-CIFQ2-E)).
- 2** When the USB - serial conversion cable (E58-CIFQ2) is connected to the personal computer, the operating system will detect the E58-CIFQ2 as a new device. Install the driver according to the prompts from the installation wizard. Use the following specific procedure for each OS.

##### ● Using Windows 8.1 or 10

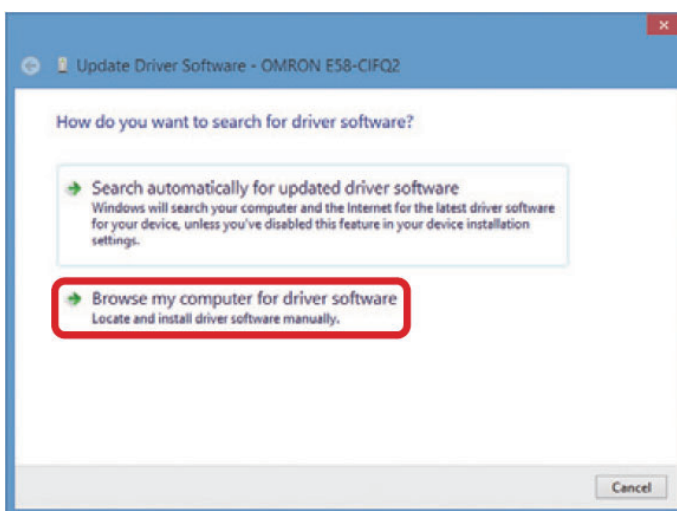
- 1** Connect the USB-Serial Conversion Cable to the USB port on the personal computer, and right-click the Windows **Start** Button to start the Device Manager.

Note If using keyboard, the menu is displayed by pressing X key while holding down Windows key.

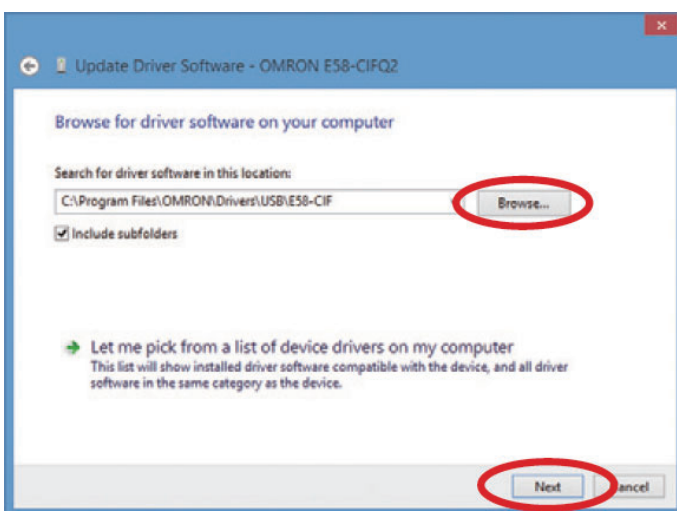
- 2 Right-click E58-CIFQ2 in Other Devices and select Update Driver Software.



- 3 In the Update Driver Software Dialog Box, select Browse my computer for driver software Option.



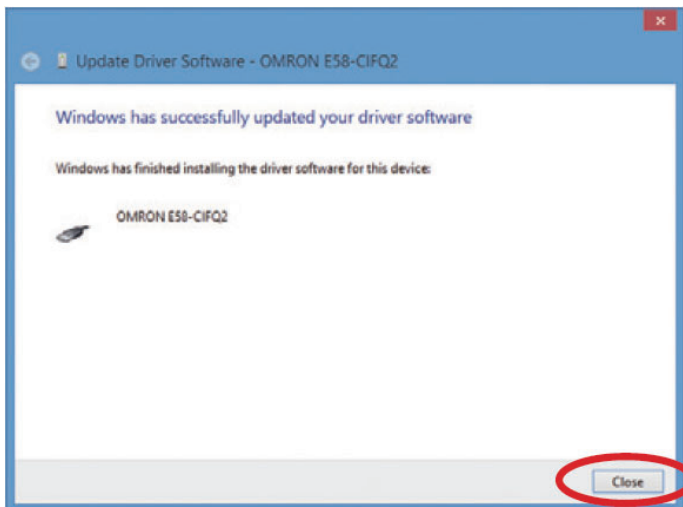
- 4 Click the **Browse** Button, select the downloaded driver, and then click the **Next** Button.



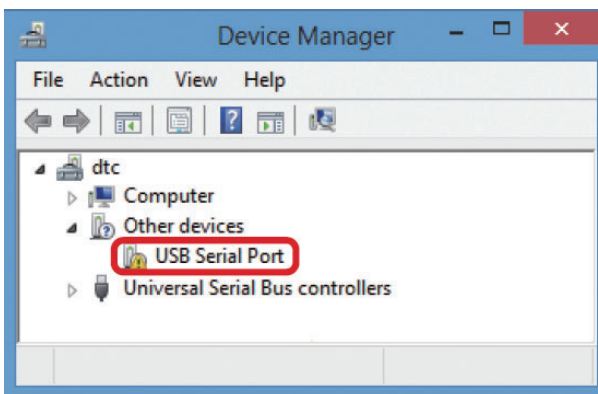
- 5 The Windows Security Dialog Box will be displayed. Click the **Install** Button.



- 6 When a message in the Update Driver Software Dialog Box says Windows has successfully updated your driver software, click the **Close** Button.

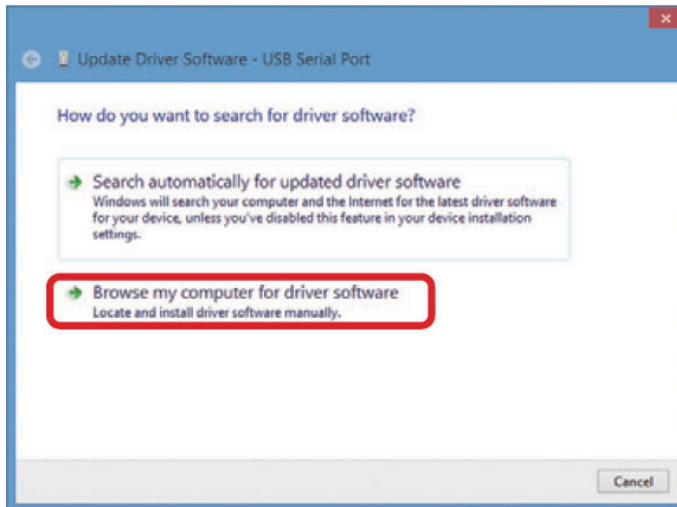


- 7 Right-click USB Serial Port in Other Devices in the Device Manager Dialog Box and select Update Driver Software.

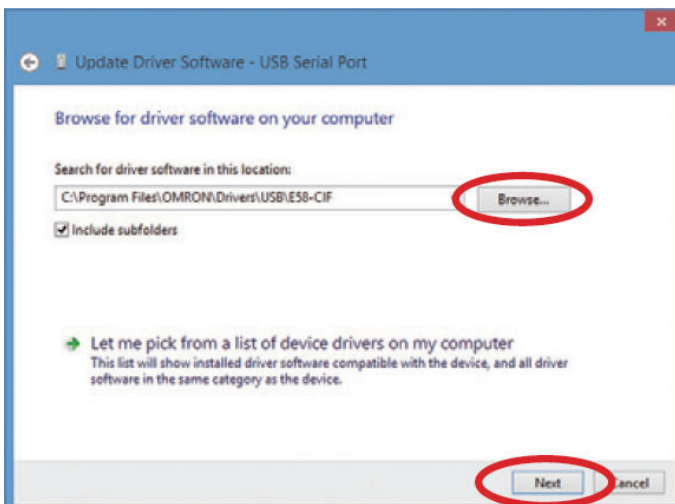




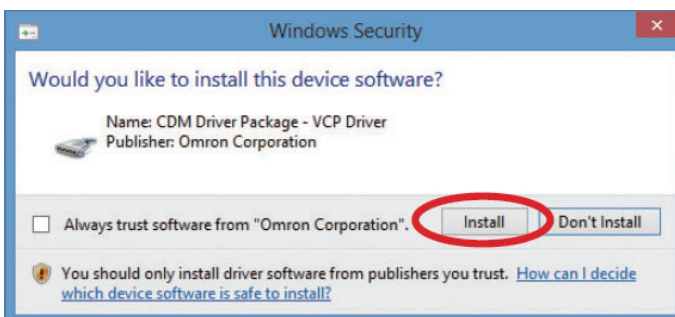
- 8 In the Update Driver Software Dialog Box, select Browse my computer for driver software Option.



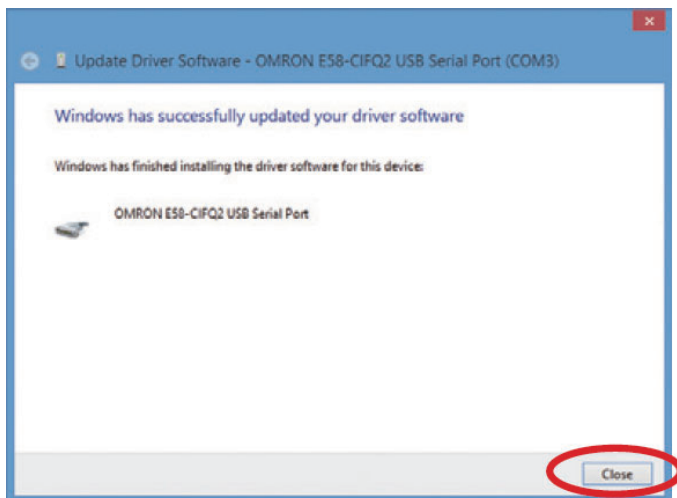
- 9 Click the **Browse** Button, select the downloaded driver, and then click the **Next** Button.



- 10 The Windows Security Dialog Box will be displayed. Click the **Install** Button.



- 11** When a message in the Update Driver Software Dialog Box says Windows has successfully updated your driver software, click the **Close** Button.



- 12** When the installation is finished, a COM port number will be allocated automatically.

To see that COM port number has been allocated, use the following procedure.

- (1) Right-click the Windows **Start** Button to start the Device Manager.
- (2) For example, if OMRON E58-CIFQ2 USB Serial Port (COM5) is displayed under the "Ports (COM & LPT)" heading in the directory tree, the device is assigned to COM port 5.

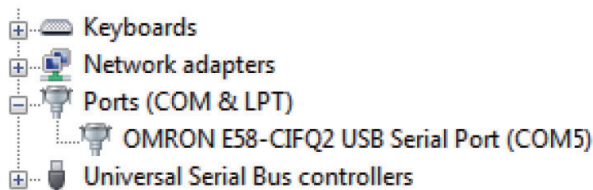
(Example)

- ▶ Keyboards
- ▶ Ports (COM & LPT)
  - ▶ OMRON E58-CIFQ2 USB Serial Port (COM5)
- ▶ Universal Serial Bus controllers

## ● Using Windows 7

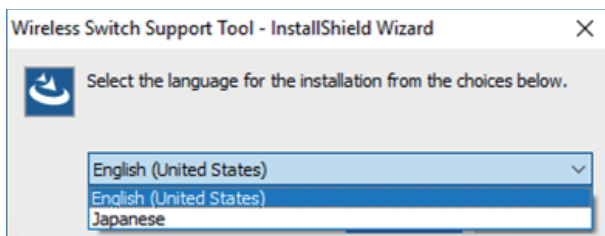
- 1** Connect the USB-Serial Conversion Cable to the USB port on the personal computer, click This PC or Computer - System Properties from the Windows Start Menu to start up the Device Manager.
- 2** Right-click E58-CIFQ2 in Other Devices and select Update Driver Software.
- 3** In the Update Driver Software Dialog Box, select Browse my computer for driver software Option.
- 4** Click the **Browse** Button, select the downloaded driver, and then click the **Next** Button.
- 5** The Windows Security Dialog Box will be displayed. Click the **Install** Button.
- 6** When a message in the Update Driver Software Dialog Box says Windows has successfully updated your driver software, click the **Close** Button. Click the **Next** Button.
- 7** Right-click USB Serial Port in Other Devices in the Device Manager Dialog Box and select Update Driver Software.
- 8** In the Update Driver Software Dialog Box, select Browse my computer for driver software Option.
- 9** Click the **Browse** Button, select the downloaded driver, and then click the **Next** Button.
- 10** The Windows Security Dialog Box will be displayed. Click the **Install** Button.
- 11** When a message in the Update Driver Software Dialog Box says Windows has successfully updated your driver software, click the **Close** Button.
- 12** When the installation is finished, a COM port number will be allocated automatically.  
To see that COM port number has been allocated, use the following procedure.
  - (1) Select This PC or Computer - System Properties from the Windows Start Menu to start up the Device Manager.
  - (2) For example, if OMRON E58-CIFQ2 USB Serial Port (COM5) is displayed under the "Ports (COM & LPT)" heading in the directory tree, the device is assigned to COM port 5.

(Example)

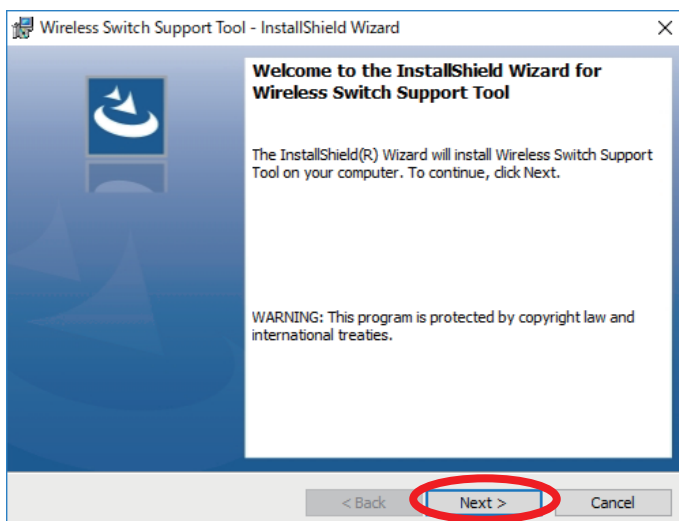


## Install the Wireless Switch Support Tool.

- 1 Select setup.exe of the downloaded Wireless Switch Support Tool.  
The following dialog box is displayed. Select Japanese or English Option, and then click **OK** Button.

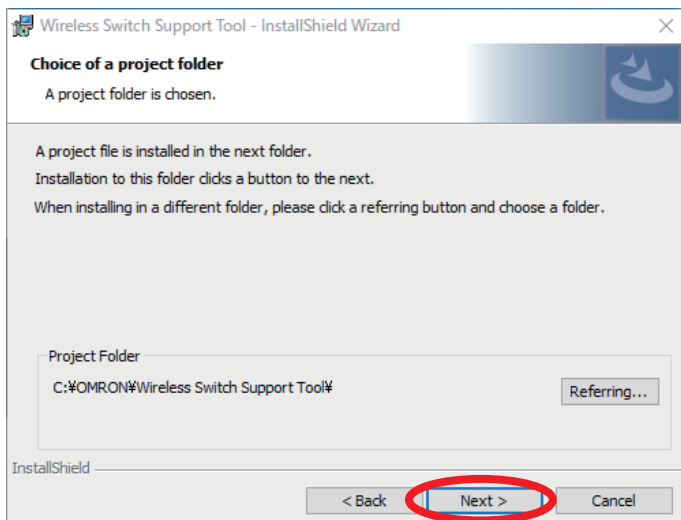


- 2 Install the .Net Framework 4.0.  
If .NET Framework is not installed on the computer, the .NET Framework Installation Dialog Box is started.  
If the .NET Framework is already installed, the above Dialog Box is not displayed. (Normally, computer with Windows 8.1 or 10 OS, the above Dialog Box is not displayed.)
- 3 The following dialog box is displayed. Click the **Next** Button.

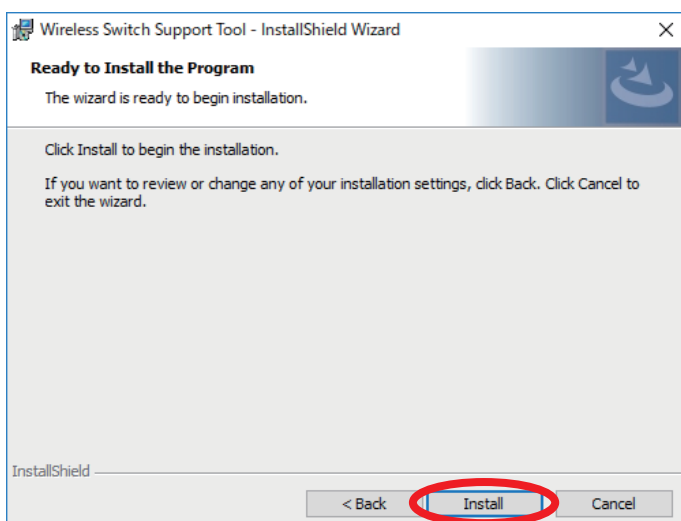


- 4 The License Agreement Dialog Box is displayed.  
Read the License Agreement carefully. If you agree to all of the conditions, select the I accept the terms of the license agreement Option, and then click the **Next** Button.

- 5** The Select Project Folder Dialog Box is displayed. Check the installation folder, and then click the **Next** Button.



- 6** The Ready to Install the Program Dialog Box is displayed. Click the **Install** Button. Installation of Wireless Switch Support Tool starts.



- 7** The Uninstall Complete Dialog Box is displayed. Click the **Finish** Button.

This completes the installation of the Wireless Switch Support Tool.

## Uninstalling the Wireless Switch Support Tool

---

Use the following procedure to uninstall the Wireless Switch Support Tool.

- 1** You use Add or Remove Programs in the Control Panel.  
The Add/Remove Applications Dialog Box will be displayed.
- 2** Select Wireless Switch Support Tool and click **Uninstall** Button.  
The following dialog box is displayed to confirm uninstallation of Wireless Switch Support Tool.
- 3** Click the **Yes** Button.  
A dialog box is displayed after uninstallation is completed.
- 4** Click the **Finish** Button.

## Uninstalling the driver for the USB-Serial Conversion Cable

---

- 1** Insert the E58-CIFQ2 USB-Serial Conversion Cable into the USB port of the personal computer.
- 2** Start up **Device Manager**.
- 3** Right-click the **OMRON E58-CIFQ2 USB Serial Port (COM□)** under the Ports (COM & LPT), and select **Uninstall**.
- 4** The Confirm Device Uninstall Dialog Box will start. Select **Delete the driver software for this device**, and click the **OK** Button.

# 5

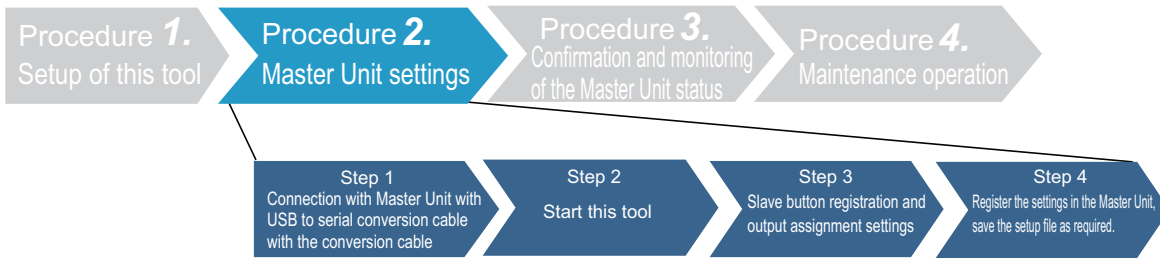
## Master Unit Settings

---

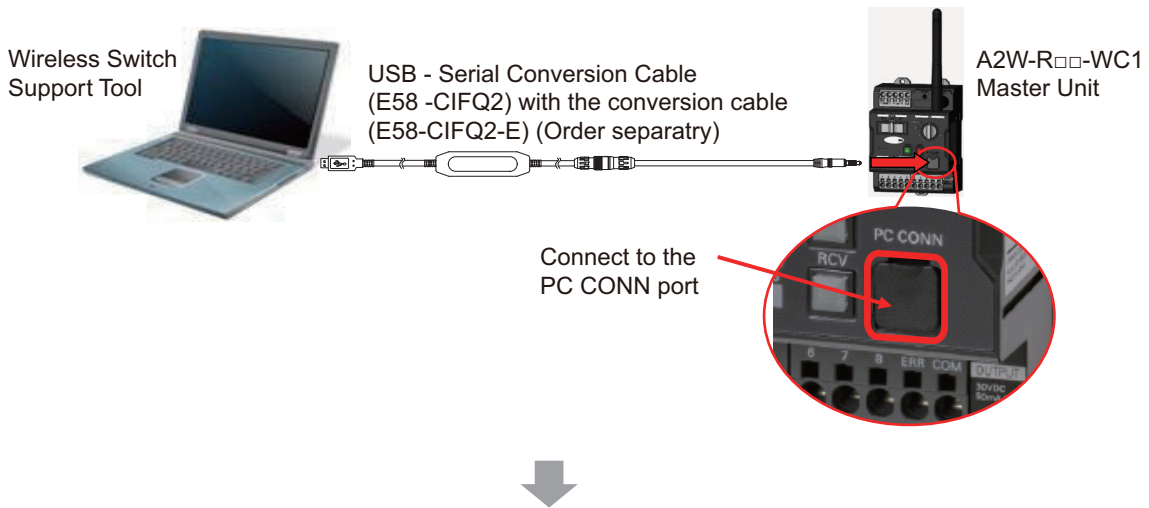
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5-1	Master Unit Settings .....	5-2
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# 5-1 Master Unit Settings

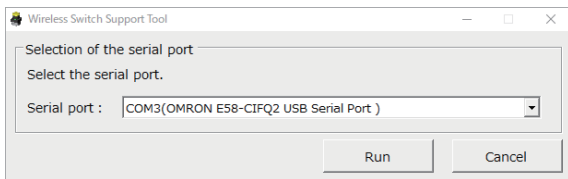


## Step 1 Connection with Master Unit with USB to serial conversion cable with the conversion cable



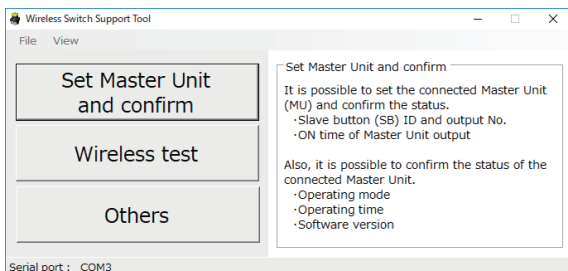
## Step 2 Start this tool

Select OMRON - Wireless Switch Support Tool from the Windows Start Menu.  
The following COM port connection screen is displayed.



Select OMRON E58-CIFQ2 USB Serial Port (COM□) from the selection box of Serial Port and click the **Run** Button.

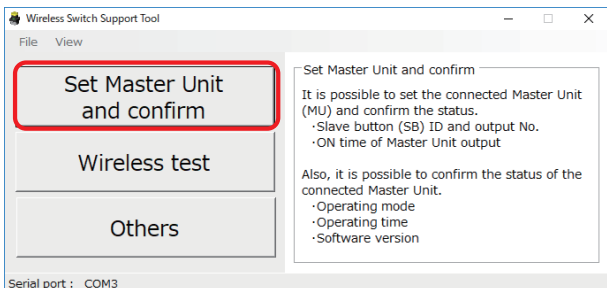
The following startup screen will be displayed.



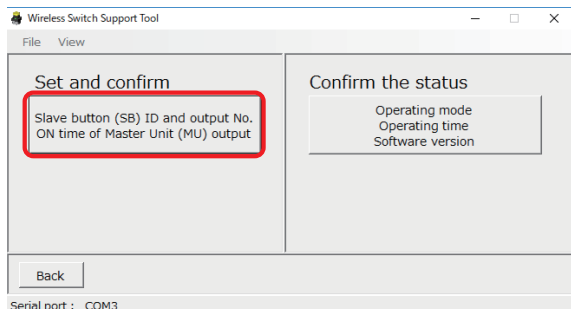


### Step 3 Slave button registration and output assignment settings

Click **Set Master Unit and confirm** Button on the Startup screen.



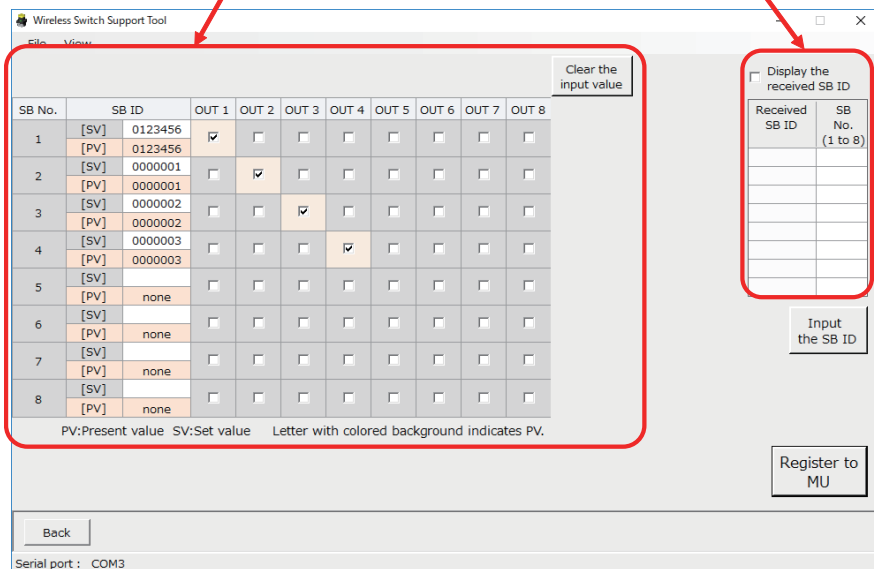
Click **Slave button (SB) ID and output No. ON time of Master Unit (MU) output** Button below.



The following Slave buttons registration and output assignment settings screen is displayed.

Slave button registration and output assignment table

Slave button ID acquisition table  
 Note: This is displayed if **Received SB ID** under the View Menu is select to ON (default: ON).



- Menu list

Main Menu	Sub Menu	contents	
File	Reading the setup file	Reads file configuration file Read out the saved setup file.  Note If the format of the read file is incorrect, an error will be displayed.	
	Save as the setup file	Saves the following information as a setup file. <ul style="list-style-type: none"> <li>• Slave buttons registration and output assignment settings</li> <li>• Setting of one-shot output time of Master Unit</li> <li>• Master Unit number, Master Unit name, and Slave button name</li> </ul>	
View	ON time of MU output	Switches whether or not to display ON time of MU. ON: Displayed OFF: No display (default)  Note Once OFF and then ON again, the status of the input field just before turning OFF is displayed.	Note Once you click the <b>Back</b> Button and display this screen again, the display items just before clicking the <b>Back</b> Button will be displayed. At that time, the display content is default.
	Name	Switches whether or not to display Master Unit number, Master Unit name, and Slave button name. ON: Displayed OFF: No display (default)  Note Once OFF and then ON again, the status of the input field just before turning OFF is displayed.	
	Received SB ID	Switches whether or not to display the Received SB ID acquisition table. ON: Displayed (default) OFF: No indication  Note Once turned OFF and ON again, the received Slave button ID and Slave button number will be cleared.	Note Once you click the <b>Back</b> Button and display this screen again, the Received SB ID and Slave button number will be cleared.

● **Confirm the current setting status of the registration and output assignment of Slave buttons**

1 to 8 of SB No. are the management number of the Slave button in this table.

The current Slave button ID is displayed in the lower row PV (pink background) of the Slave button ID Column on each row of the Slave button.

Set the Slave button ID to the upper "SV" (white background).

Management number of the Slave button in the table

SB No.	SB ID	
1	[SV]	0123456
	[PV]	0123456

Labels in diagram:  
 - Red arrow pointing to '1': Management number of the Slave button in the table  
 - Red arrow pointing to '0123456' in [SV] row: Slave button ID to set  
 - Red arrow pointing to '0123456' in [PV] row: Current Slave button ID

## ● Slave button ID setting of each Slave button

Set the Slave button ID in the upper row of the Slave button ID Column in each row of the Slave button. It depends on one of the following methods a) and b).

- a) Manually enter the Slave button ID directly in the Slave button registration and output assignment table. Enter the Slave button ID with 7 digits without omitting 0 (Example: "1" instead of "0000001").

Or

- b) Actually operate the pushbutton on the Slave button, and then you can acquire the Slave button ID and input it. It depends on the following procedure.

- 1 Select the *Display the received SB ID* Check Box above the receive Slave button ID acquisition table.
- 2 Press the pushbutton on the Slave button. The ID of that Slave button is acquired and displayed in the *Received SB ID* Field of the received Slave button ID acquisition table.

You can get the ID of up to eight Slave buttons.

- \* In the *Received SB ID* Field, the IDs of the Slave buttons that transmitted the signal to the Master Unit are acquired. If you do not enter the number in the *SB No.* Field, up to 8 IDs are displayed from the latest acquisition information.
- \* When the same Slave button is transmitted multiple times, the same ID is acquired more than once.

- 3 Register the acquired Slave button ID in the left table by any of the following methods.

- Method 1: button operation

In the *Slave button Number (1 to 8)* Field, enter the Slave button management number (in the Slave button registration and output assignment table) of the acquired Slave button ID. Then click the **Input the SB ID** Button on the received Slave button ID acquisition table. The acquired Slave button ID is set in the *Received SB ID* Column of the specified Slave button number in the Slave button registration and output assignment table.


- \* When you operate the Slave button with full eight IDs displayed, the value is deleted from the older information in the lines where numbers have not been entered in the *SB No.* Field. On the other hand, the value is not deleted in the lines where numbers have been entered in the *SB No.* Field.

- \* When you click the **Input the SB ID** Button under the following conditions, an error will be detected and displayed.

- A state where a Slave button number other than 1 to 8 is entered
- A state where duplicate Slave button numbers are entered
- A state where different Slave button numbers are entered for the same Slave button ID
- A state where the same Slave button ID already exists in the Slave button ID column (*SB ID* Column)

- Method 2: Drag & drop operation

Drag and drop the acquired Slave button ID to 1 to 8 of SB No. in the Slave button registration and output assignment table.

1) Select the Check Box.  
2) Acquire the ID value by actually operating the Slave button.  
Push operation 

3) Method 1: Button operation.  
1. Enter Slave button Number.  
Example: 3  
2. Click **Input the SB ID** Button

Or

3) Method 2: Dragging

SB No.	SB ID	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8
1	[SV] 0123456 [PV] 0123456	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	[SV] 0000001 [PV] 0000001	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	[SV] 0000002 [PV] 0000002	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	[SV] 0000003 [PV] 0000003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	[SV] [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	[SV] [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	[SV] [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	[SV] [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PV:Present value SV:Set value Letter with colored background indicates PV.

Serial port : COM3 Communicating with Master Unit. Do not operate the switch built in Master Unit nor pull cables out.

In method 1, the following confirmation screen is displayed. If it is correct, click the **OK** Button.

Wireless Switch Support Tool

Are you sure you want to input in the Slave button ID column?

OK Cancel



### Precautions for Correct Use

In the *Received SB ID* Field of the Slave button ID acquisition table, the same Slave button ID may be displayed according to the number of times the same Slave button was operated. Up to 8 IDs can be displayed in the *SB No.* Field. When you operate the Slave button with full eight IDs displayed, the value is deleted from the older information in the lines where numbers have not been entered in the *SB No.* Field. On the other hand, the value is not deleted in the lines where numbers have been entered in the *SB No.* Field.

## ● Assignment of each Slave Button to the Master Unit Output Number

The assignment setting to the current output number which has been read from the Master Unit is displayed with a pink background.

When changing or adding, select the Check Boxes on the right outputs 1 to 8. Multiple selects are possible.



### Precautions for Correct Use

If you operate the mode settings switch of the actual Master Unit while selecting the *Display the received SB ID* Check Box from the Wireless Switch Support Tool, a communication error occurs. Then the following confirmation screen as to whether or not to continue the operation will be displayed, as the mode change was detected.



### Additional Information

When selecting each item under the View Menu, each item is displayed and it becomes possible to input.

It is displayed only when selecting the **Name** under the View Menu to ON.

SB No.	SB ID	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	Name (up to 32 characters)
1	[SV] 0123456 [PV] 0123456	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	[SV] 0000001 [PV] 0000001	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	[SV] 0001097 [PV] 0000002	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	[SV] 0000003 [PV] 0000003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	[SV] none [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	[SV] none [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	[SV] none [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	[SV] none [PV] none	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PV:Present value SV:Set value Letter with colored background indicates PV.

ON time of MU output 99-1000 [ms]  
[PV] 500 ms [SV] 500

It is displayed only when selecting the **ON time of MU output** under the View Menu to ON.

## ● Setting of Master Unit number and Master Unit name and Slave button name (as necessary)

When selecting Name under the View Menu, Master Unit number and Master Unit name will be displayed above the Slave button registration and output assignment table, Slave button name is displayed on the right.

- Enter Master Unit number in MU No. 1-9999 above the Slave button registration and output assignment table. This value is the management number of the Master Unit by the user.
- Enter any name of Master Unit in Name above Slave button registration and output assignment table.

**Note** The Master Unit number and name entered here becomes the default name of the setup file created by clicking *Save as the setup file* from the File Menu. (The default displayed name of setup file when saved is [Master Unit Number]\_[Master Unit Name].)

However, this Master Unit Number and name will not be registered in the actual Master Unit, depending on the registration operation to the Master Unit with the setting shown in Step 4. This is the value on the Wireless Switch Support Tool. Therefore, we recommend that it be the same as the number or name written on the seal stuck to the actual Master Unit.

- Enter any name of the Slave button in Name to the right of the Slave button registration and output assignment table.

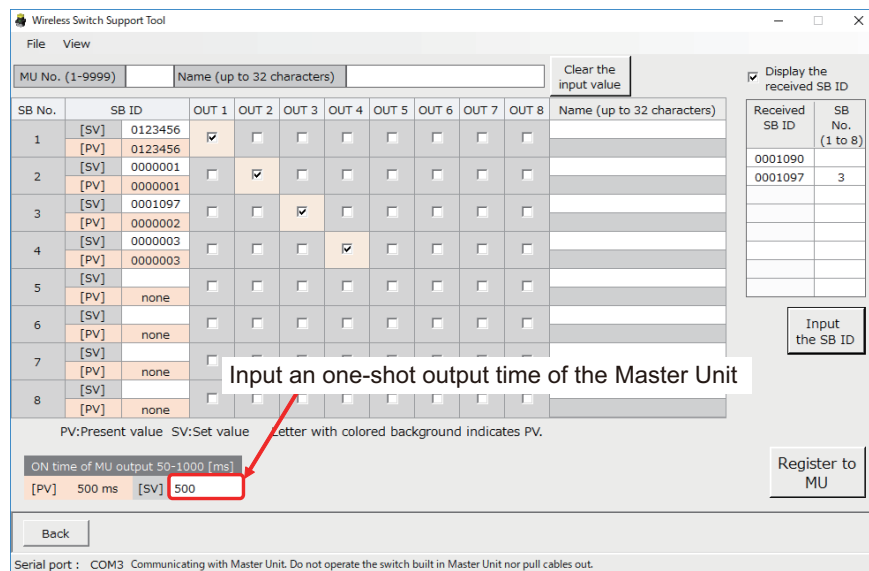
● **Setting of one-shot output time of Master Unit (as necessary)**

When selecting ON time of MU output under the View Menu, ON time of MU output under the Slave button registration and output assignment table is displayed.

One shot output time setting of the current Master Unit read from the Master Unit is displayed in PV with a pink background.

If necessary, change SV of one-shot output time of the Master Unit from default 500 ms.

Set the setting value of ON time of Master Unit (MU) output. It can be set in the range of 50 to 1000 ms.



**Precautions for Correct Use**

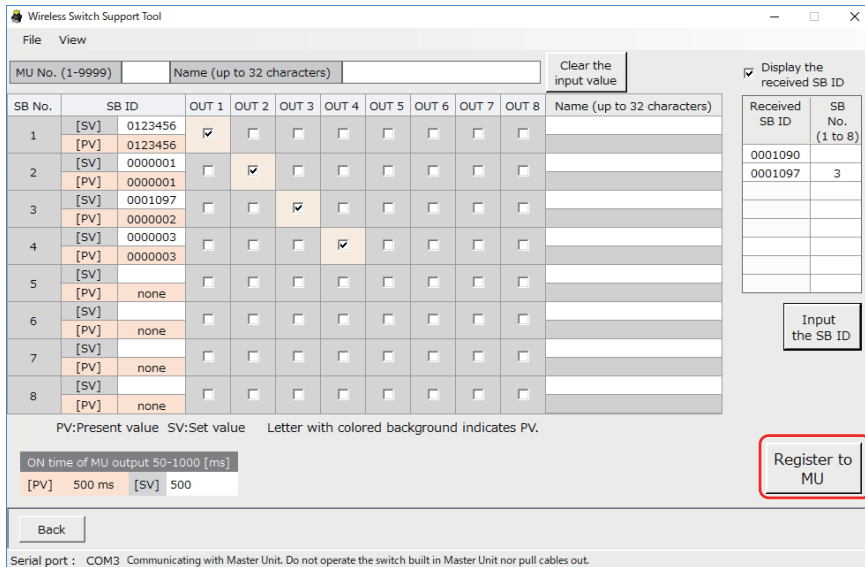
Be aware that the set time, displayed by checking "ON" in the ON time of MU output under the View Menu, is registered in Master Unit, even when you click the **Register to MU** Button without *ON time of MU output* displayed below the Slave button registration and output assignment table.



**Step 4 Register the settings in the Master Unit, save the setup file as required.**

● **Register settings in the Master Unit**

Click the **Register to MU** Button at the lower right of the Slave buttons registration and output assignment settings screen.



Slave buttons registration and output assignment settings, and one-shot output time of Master Unit are transferred to Master Unit.

● **Save to setup file as required**

Select the *Save as the setup file* from the File Menu as required. The configuration file is a tab-delimited text file format (.txt).

Note The default setup file is [Master Unit Number] \_ [Master Unit Name]. If only one is entered, only the entered contents are displayed. If both are blank, an empty space is displayed.

The following data is written in the setup file.

- Slave buttons registration and output assignment settings
- Setting of one-shot output time of Master Unit
- Master Unit number, Master Unit name, and Slave button name
- The content of the tab delimited format is as follows.

Master Unit No.										
Master Unit name										
Slave button No.	Slave button ID	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	Slave button name
1	ID:									
2	ID:									
3	ID:									
4	ID:									
5	ID:									
6	ID:									
7	ID:									
8	ID:									
Output ON time		ms								

● **How to open the setup file**

You can open the setup file in Microsoft Excel in the following way.

- 1** Start Microsoft Excel and select *Open* from the File Menu.
- 2** In File type Dialog Box, select All files (\*. \*), Select the setup file and click the **Open** Button.  
The setup file is loaded in Microsoft Excel.



**Additional Information**

• Direct Editing of Setup Files

When installing the Wireless Switch Support Tool, the default setup file is installed in the following storage location.

- Storage location: C:\OMRONWireless Switch Support Tool\DATA
- File name: WirelessSwitchSupportTool\_SettingFile\_jp.txt Or WirelessSwitchSupportTool\_SettingFile\_en.txt

(The file name will be changed according to the language selected during installation.)

You can easily create multiple setup files by copying this default setting file and editing it with Microsoft Excel, text editor.

The created setup file can be read by selecting *Reading the setup file* from the File Menu.

Details of the default setting file are as follows.

Master Unit No.	Master Unit name	Slave button	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	Slave button name
1 ID:											
2 ID:											
3 ID:											
4 ID:											
5 ID:											
6 ID:											
7 ID:											
8 ID:											
Output ON	500 ms										
*Input e*Following contents are not reflected on the setting. *Master Unit No. [1...1-9999], can be left blank.* *Master Unit Master Unit: * size of character, can be left blank.* *Slave button Slave button: * size of character, can be left blank.* *Slave button ID is 7-digit No., printed on the case of the Slave button. *Input the Slave button ID without omitting "0". *Write "ID" first when input in the Slave button ID column. *To each Slave button ID, the Output No. that "1" was input is turned ON.											
Output ON	500 ms [50-1000 ms]	Default: 500 ms									



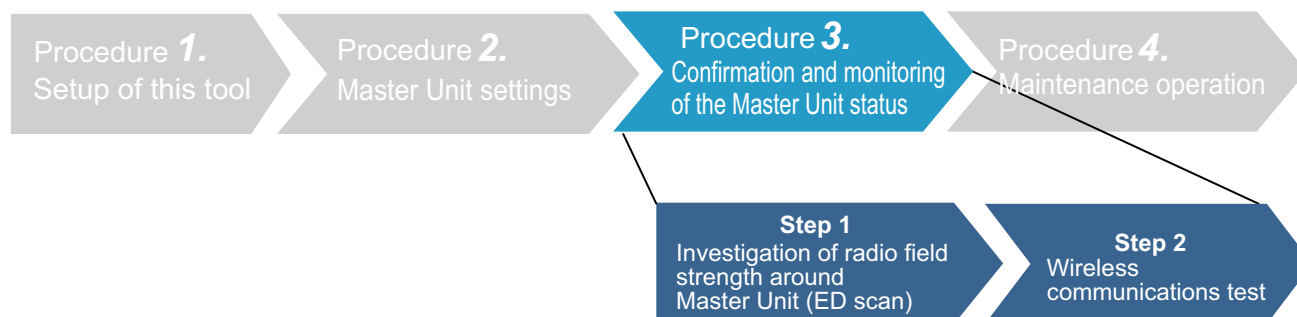


# Confirm the operating environment of the Master Unit

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6-1	Confirm the operating environment of the Master Unit	6-2
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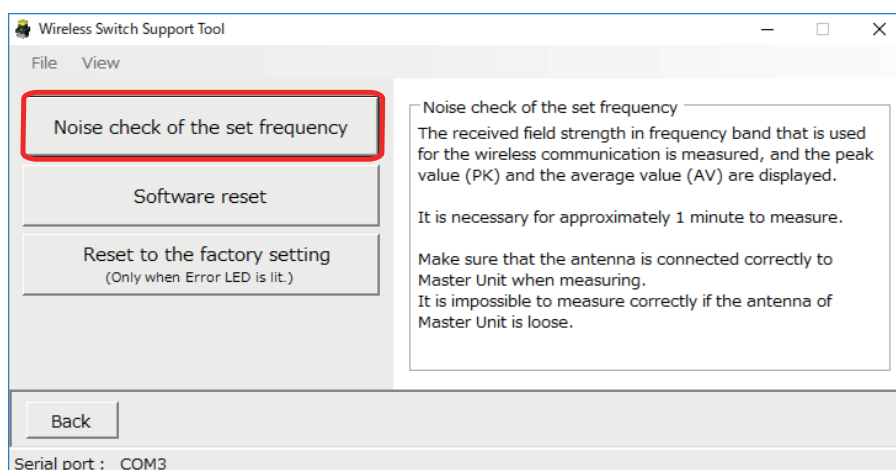
## 6-1 Confirm the operating environment of the Master Unit



### Step 1 Investigation of radio field strength around Master Unit (ED scan)

We will investigate the radio field strength around the Master Unit.

Click **Others** Button on the startup screen and click **Noise check of the set frequency** Button below.



The following Wireless communications environment confirmation screen is displayed.

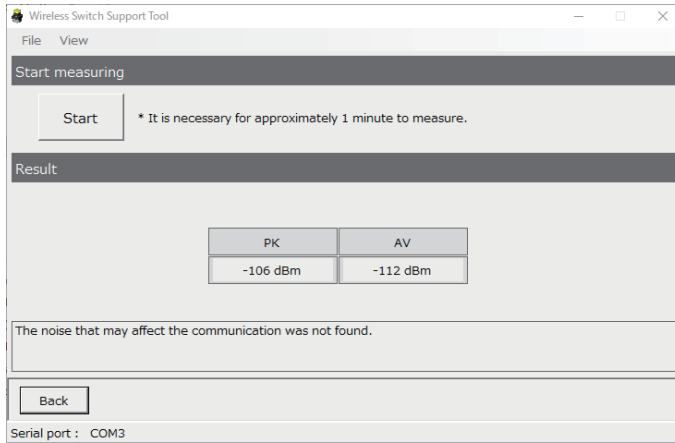
Click the **Start** Button in the *Start measuring* Field.

Approximately 60 seconds later, the value of the radio field strength around the Master Unit will be displayed in the *Result* Field as the value of the received strength (RSSI: Received Signal Strength Indicator). The unit is dBm.

- PK: peak of reception strength
- AV: average value of reception strength

At the same time, the following message will be displayed below it.

- The noise that may affect the communication was not found.
- The noise that may affect the communication was temporarily found.
- The noise that may affect the communication was regularly found.



### Precautions for Correct Use

If you operate the mode settings switch of the actual Master Unit while measuring the noise from the Wireless Switch Support Tool, a communications error occurs.

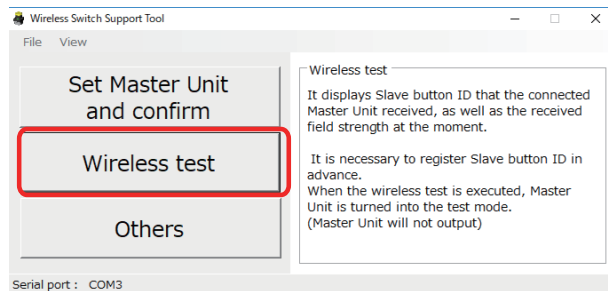


## Step 2 Wireless communications test

Run Wireless Test \* 1.

\*1. Even if you receive an operation signal from the Slave button at this time, output from the Master Unit will not be performed.

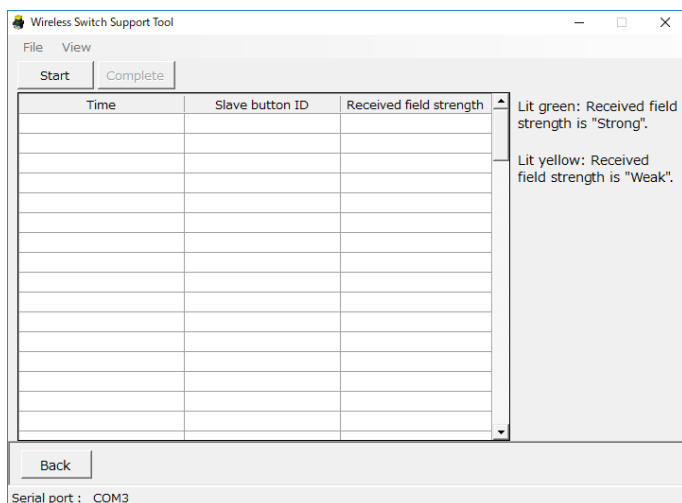
Click **Wireless test** Button on the following Startup screen.



The Wireless Test screen appears.

Click the **Start** Button. Until you click the **Complete** Button, it will be additionally displayed each time the reception result from the Slave button is received.

- Display of reception result from Slave buttons:

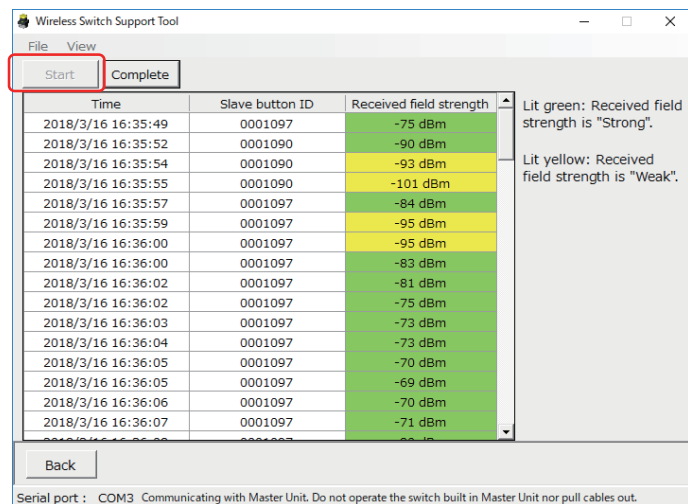


Up to 100 logs are displayed. Next, click the **Start** Button to clear the display.

- Save tab-delimited text file of reception result from Slave buttons

The log of the reception result from clicking the **Start** Button to clicking the **Complete** Button is tab division. It is saved as a cut text file (.txt).

The file name will be the date and time seconds automatically clicking the **Start** Button.



### Precautions for Correct Use

- If you operate the mode settings switch of the actual Master Unit while executing the wireless test from the Wireless Switch Support Tool, a communications error occurs. Then the following confirmation screen as to whether or not to continue the operation will be displayed, as the mode change was detected.
- Do not open a tab-delimited text file (.txt) of the reception result log until you click the **Start** Button and click the **Complete** Button. If you open it, you cannot write the result to a file when receiving data, so you cannot implement Wireless Test correctly.
- The wireless test checks the Master Unit periodically for the latest received data from the Wireless Switch Support Tool and displays the latest received data from the Slave button if it is available. However, if the Master Unit receives the operation result of the Slave button at intervals shorter than the interval to be periodically acquired, the value is overwritten before the Wireless Switch Support Tool retrieves the reception result. As a result, be aware that the reception result from the Slave button may be missed.

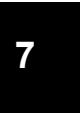


# Maintenance operation

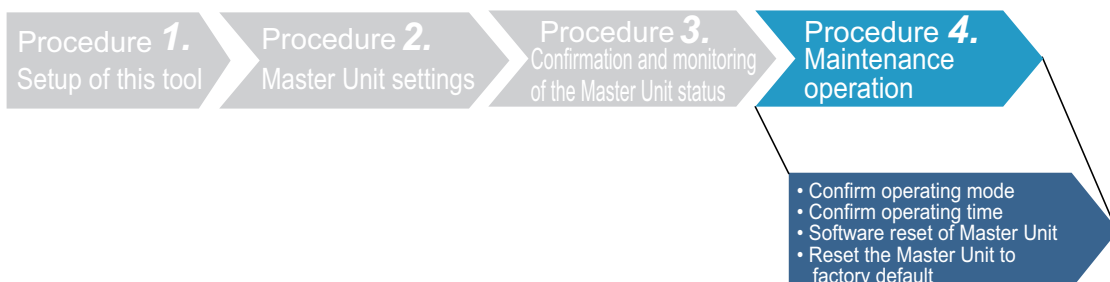


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7-1 Maintenance operation ..... 7-2



# 7-1 Maintenance operation

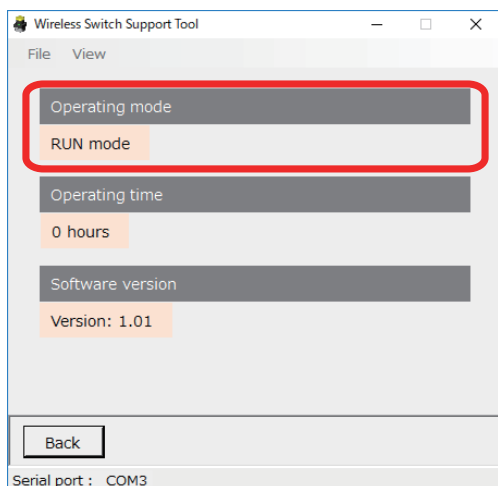


## Confirm operating mode

Check the operating mode of Master Unit.

Click the **Confirm the status** Button on Set Master Unit and confirm screen from the Startup screen.

The following confirm the status screen will be displayed.

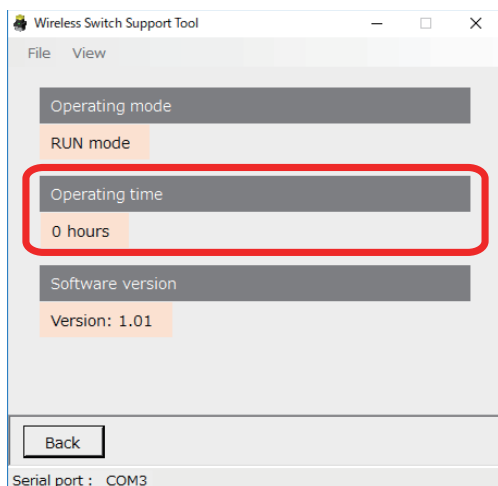


## Confirm operating time

You can check the operating time of Master Unit.

Click the **Confirm the status** Button on Set Master Unit and confirm screen from the Startup screen.

The following confirm the status screen will be displayed.

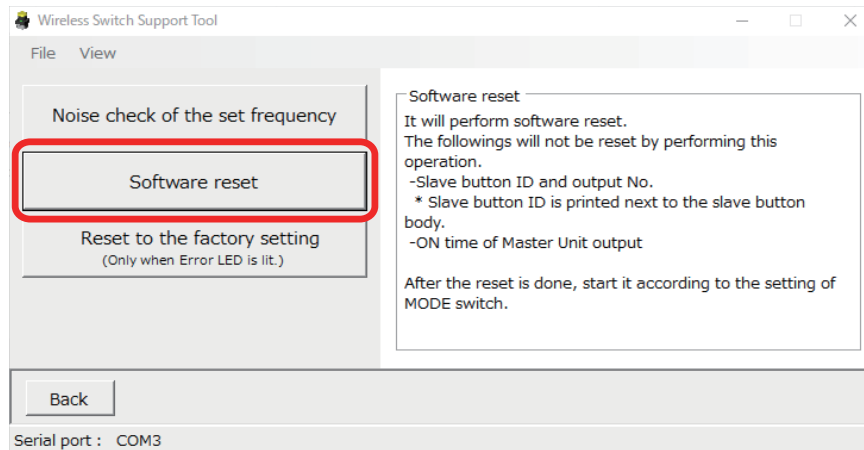


## Software reset of Master Unit

Master Unit will return the operating mode of Master Unit to the front mode settings switch state.

Click **Others** Button on the Startup screen and click **Software reset** Button below.

The operating mode of the Master Unit is reset to the front mode settings switch state.



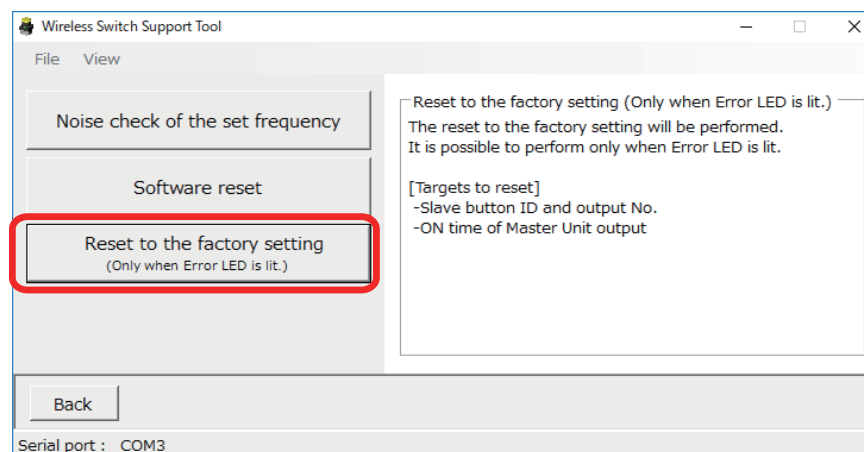
## Resetting Master Unit to Factory Default

Reset the Master Unit to factory default. Operation is possible only when the Master Unit error LED is lit red.

Click Others on the Startup screen and click the following **Reset to the factory setting (only when error LED is lit)** Button.

Slave buttons registration and output assignment settings and one-shot output time of Master Unit are reset to factory default.

When the factory default reset is completed, please perform Slave button registration and output assignment settings again.







# 8

## Troubleshooting

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8-1 Troubleshooting .....	8-2
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# 8-1 Troubleshooting

Problems	Cause	Countermeasures
"OMRON . . ." is not displayed on the serial port selection screen	The cable is not correctly connected to the computer.	Correctly connect again.
	The driver for the USB - Serial Conversion Cable is not installed.	Install the driver. For details, refer to <i>Section 4 Setup of this tool</i> .
Failure to connect with Master Unit.	The Master Unit is not powered on.	Correctly connect again.
	The cable is not connected to the Master Unit, computer correctly.	Correctly connect again.
Received SB ID is not displayed.	<i>Display the received SB ID</i> Check Box is not selected.	Select the <i>Display the received SB ID</i> Check Box. For details, refer to <i>Step 3 Slave button registration and output assignment settings</i> on page 5-3 in Section 5 Master Unit Settings.
	Antenna is not properly connected	Connect the antenna without loosening.
Noise check of the set frequency is not displayed.	<b>Start</b> Button is not clicked.	Click the <b>Start</b> Button. For details, refer to <i>Step 1 Investigation of radio field strength around Master Unit (ED scan)</i> on page 6-2 in Section 6 Confirm the operating environment of the Master Unit.
Wireless Test result is not displayed.	<b>Start</b> Button is not clicked.	Click the <b>Start</b> Button. For details, refer to <i>Step 2 Wireless communications test</i> on page 6-3 in Section 6 Confirm the operating environment of the Master Unit.
	The ID of the Slave button used for Master Unit is not registered.	Register the ID of the Slave button to be used in the Master Unit. For details, refer to <i>Step 3 Slave button registration and output assignment settings</i> on page 5-3 in Section 5 Master Unit Settings.
	Antenna is not properly connected	Connect the antenna without loosening.
Tab-delimited text files are hard to read	You have not opened it in Microsoft Excel.	Open it in Microsoft Excel. For details, refer to <i>Step 4 Register the settings in the Master Unit, save the setup file as required.</i> on page 5-9 in Section 5 Master Unit Settings.



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