

# OT-WL05

## Technical Reference Guide

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### Product Overview

This chapter explains features, product configuration and specifications.

### Installation

This chapter explains the connection and installation of the wireless LAN unit.

## Cautions

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# For Safety

## Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

 <b>WARNING</b>	You must follow warnings carefully to avoid serious bodily injury.
 <b>CAUTION</b>	Provides information that must be observed to prevent damage to the equipment or loss of data. <ul style="list-style-type: none"><li>• Possibility of sustaining physical injuries.</li><li>• Possibility of causing physical damage.</li><li>• Possibility of causing information loss.</li></ul>
<b>CAUTION</b>	Provides information that must be observed to avoid damage to your equipment or a malfunction.
<b>NOTE</b>	Provides important information and useful tips.

## Warnings

 <b>WARNING</b>	<ul style="list-style-type: none"><li>• <b>May exert electromagnetic interference on, and cause malfunction of, cardiac pacemakers.</b> Before using this product, check that there is no one in the vicinity using a cardiac pacemaker.</li><li>• <b>May exert electromagnetic interference on, and cause malfunction of, sensitive medical equipment.</b> Before using this product, check that there is no sensitive medical equipment in the vicinity.</li><li>• <b>Use of this product on aircraft may be restricted in some countries.</b> Before using this product, check that use of this product is not restricted on the aircraft.</li><li>• <b>Never attempt to repair this product yourself.</b> Improper repair work can be dangerous.</li><li>• <b>Never disassemble or modify this product.</b> Tampering with this product may result in injury or fire.</li></ul>
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## Cautions



### CAUTION

Be sure to observe the following points to prevent failures, damages, and malfunctions.

- Only connect to a compatible TM printer.
- Do not leave for an extended period in locations that have high temperatures or humidity levels.
- Do not let this product get wet.
- Do not drop or let this product receive an impact.

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## Usage Precautions

To comply with the requirements, a distance of at least 20 cm {7.87"} must be maintained at all times between the antenna of this product and people in the vicinity.

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## Wireless Telegraphy Act Regulations

The following acts are prohibited by the Wireless Telegraphy Act.

- Modifying and disassembling (including the antenna)
- Removing the label of conformance

## Restriction of Use

When this product is used for applications requiring high reliability/safety, such as transportation devices related to aviation, rail, marine, automotive, etc.; disaster prevention devices; various safety devices, etc.; or functional/precision devices, etc., you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety, such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care, etc., please make your own judgment on this product's suitability after a full evaluation.

## Product Servicing

This product cannot be serviced at the component level. In case of a fault, replace the OT-WL05 itself.

# Cautions Regarding Radio Wave Radiation

## The influence on the environment of radio wave radiation

- ❑ The electromagnetic energy radiated from this product is suppressed so that it is much lower than that of radio equipment like cell phones.
- ❑ Under some situations and in certain environments, the use of this product is sometimes limited by the owner of the building or a representative with responsibility for the group. If you do not understand the radio device usage policy in a specific group or environment, such as an airport, ask permission before using this product.

## The influence on the human body of radio wave radiation

The output power radiated from the Radio Frequency module that can be installed in this product is much lower than the radiation limit specified in the safety standard. However, it is best to avoid allowing this product to contact your body during usual operation. While using, be especially careful not to touch the wireless LAN unit.

## Note about interference

- ❑ This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
- ❑ If this product does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna for radio/TV.
  - Increase the separation between this product and radio/TV.
  - Connect the printer fitted with this product to an outlet on a different circuit from the radio/TV.
  - Consult your dealer or an experienced radio/TV technician for help.
- ❑ When using this product in environments where microwaves and other devices that may interfere radio waves are installed, observe the following points.
  - Keep the wireless LAN unit away from the devices that may cause radio wave interference.
  - Use channels that are away from the frequency bands that may cause radio wave influence.
  - Place shields between the wireless LAN unit and the devices that may cause radio wave interference.
  - Select either 2.4 GHz or 5 GHz, whichever is free from radio wave interference.
  - In auto channel setting for the access point, do not select a channel in which the devices may cause radio wave interference.
- ❑ Never disassemble or modify this product. Seiko Epson Corporation shall not be liable for interference to radio/TV resulting from changes or modifications to this product not expressly approved by Seiko Epson Corporation.

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## Cautions Regarding Wireless LAN Connections

- ❑ In the infrastructure mode, W53 and W56 channels are not available to connect to a stealth SSID access point.
- ❑ Because not all the combinations of the product and wireless LAN devices have been checked for operation, the operation of the product in combination with all the wireless LAN devices is not guaranteed. Especially in the ad hoc mode, the product may not operate normally, depending on the combination of the device to connect with. Be sure to carry out through evaluation of the operation before use.

# Cautions Regarding Security

## Notes on Security when Using Wireless LAN

(Important information on customer rights (maintaining privacy))

The advantage of using a wireless LAN over a LAN cable is that, because information is exchanged using radio signals, you can easily connect to the network if you are within range of the radio signals. A disadvantage of this is that within a certain range, the electromagnetic signals can pass through barriers such as walls, so that if security countermeasures are not implemented in some way, problems such as the following may occur.

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### Communicated data can be intercepted

A third party may be able to receive wireless transmissions without authorization, and they could obtain personal information from these transmissions such as IDs, passwords, or credit card numbers, or they could intercept the contents of personal e-mail messages.

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### Unauthorized access to the network

A third party could access an individual or intra-company network without permission and carry out any of the following activities.

- Retrieve personal data or other secret information (information leakage)
- Pose as another user and send inappropriate data (impersonation)
- Overwrite the contents of intercepted data and resend it (falsification)
- Introduce a computer virus which could cause data loss or system crashes (damage)

Initially, the possibility that such problems could occur through settings concerning the security of the wireless LAN product and by using the product are decreased, because the wireless LAN card and the access point have security measures to deal with these problems. We recommend that you use this product after making security settings using your own judgment and assuming full responsibility, and with your full understanding of problems that may occur if you do not make any security settings.

## Notes on Setting SSID (Service Set Identifier)

For protection of security, note the following precautions when setting the SSID.

- Change the SSID from the default setting.
- Do not set texts by which the owner can be identified as the SSID.

## Notes on Setting Cryptographic Key

For protection of security, note the following precautions when setting the cryptographic key.

- Avoid using words on a dictionary as practicably as possible.
- Combine meaningless alphanumeric characters and symbols.
- Use texts consisted of at least 13 characters or more or of 20 characters or more if possible.

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# About this Manual

## Aim of the Manual

This manual is aimed to provide the necessary information on installation and network connection for this product.

## Manual Content

The manual is made up of the following sections:

Chapter 1      [Product Overview](#)

Chapter 2      [Installation](#)



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# Product Overview

This chapter explains the product overview.

## Features

The OT-WL05 is a wireless LAN cable set for Epson TM printers. Compatible printers have a description to that effect in their manual or guide. Be sure to confirm compatibility before using this product.

### Wireless LAN

- Compliance with IEEE802.11a/b/g/n wireless communication standards
- Extension cable (1 m) for installation according to the radio wave conditions at the customer's installation site
- Rubber cover to prevent disconnection of the wireless LAN unit from the extension cable

## Product Configurations

- Wireless LAN unit
- USB extension cable
- Affixing tape
- Rubber cover
- User's manual

# Specifications

Power-supply Voltage		DC 5 V
Current Consumption		Maximum 0.5 A
Frequency Range	USA/ Canada	IEEE 802.11b/g/n (2.4GHz): 1 to 11ch IEEE 802.11a/n (5.0GHz): W52 (36,40,44,48ch) *1 W53 (52,56,60,64ch) *2 W56 (100,104,108,112,116,132,136,140ch) *2 W58 (149,153,157,161,165ch)
	Europe/ Oceania	IEEE 802.11b/g/n (2.4GHz): 1 to 13ch IEEE 802.11a/n (5.0GHz): W52 (36,40,44,48ch) *1 W53 (52,56,60,64ch) *2, *3 W56 (100,104,108,112,116,120,124,128,132,136,140ch) *2
Potential Interference Range		40 m {43.74 yd}
Appearance		Wireless LAN unit: W × D × H: Approx. 67 mm × 20 mm × 10 mm {2.64 × 0.79 × 0.39"} USB extension cable: Length: 1 m {39.37"}

\*1 Using outdoors is prohibited (excluding USA).

\*2 Ad hoc mode is unavailable.

\*3 Using outdoors is prohibited (Europe/Australia).

## Security

Security can be selected from among the following.

- WEP
- WPA-PSK (AES)
- WPA2-PSK
- WPA2-Enterprise

## Environmental Specifications

Item		Specifications
Temperature	Operating Conditions	0 to 45°C {41 to 113°F} *
	Storage Conditions	-5 to 50°C {23 to 122°F}
Humidity	Operating Conditions	10 to 90% RH
	Storage Conditions	10 to 90% RH

\*However, the surface temperature for the wireless LAN unit is less than 70°C {158°F}.

## Limitations for wireless communication

- The transmission of the radio waves cannot be stopped. The only way to stop the transmission of radio waves is to turn the TM printer off.
- Countries where this product can be used are limited. Since notes are provided for each country, check the manual supplied with the product.
- When setting the encryption type, there are the following restrictions:
  - WPA-PSK/WPA2-PSK/WPA2-Enterprise are not available in the ad hoc mode.
- When using the OT-WL05 in the ad hoc mode, printing a status sheet is subject to the following restrictions
  - Even if there is no host computer to connect to, "Connect" appears as the Link Status.
  - Between power-on and the time when the printer to connect is found, "0dBm" appears as the Signal Level. If the host computer connected to the TM printer discontinues communication, the value that had been obtained immediately before discontinuation of communication is held appears.

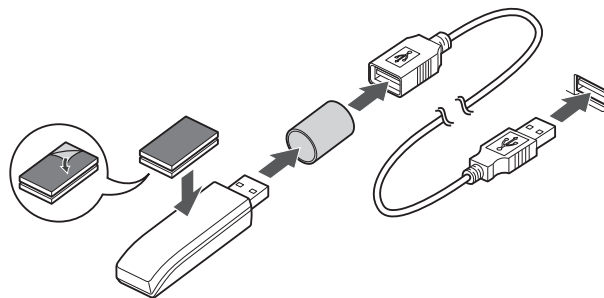


# Installation

This chapter explains the connection and installation of the wireless LAN unit.

## Connecting the Wireless LAN Unit

Confirm that the printer's power is off, then insert this product into the printer's USB connector (Type-A). If it causes interference with other cables or poor transmission, connect via the USB extension cable as shown in the figure. In that case, attach the included rubber cover to prevent the product from coming off. Also, use the included affixing tape to affix the wireless LAN unit.



### CAUTION

When detaching the affixed wireless LAN unit, be sure to hold the unit itself. Do not detach it by pulling the USB extension cable.

## Connecting to the Network

To connect to a network, use the TM printer's SimpleAP mode. In SimpleAP mode, the printer functions as a simple access point. Therefore, you can connect to it in the same way as connecting to an access point.

### NOTE

Once wireless LAN network settings are performed, the printer will not start up in SimpleAP mode. If you want to start it up in SimpleAP mode, initialize either the printer or the interface unit which is installed in the printer. For the initialization method, see the User's Manual or the Technical Reference Guide for the printer or the interface unit.

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## Setting up from a Smart Device

### Necessary Items

Prepare the following items.

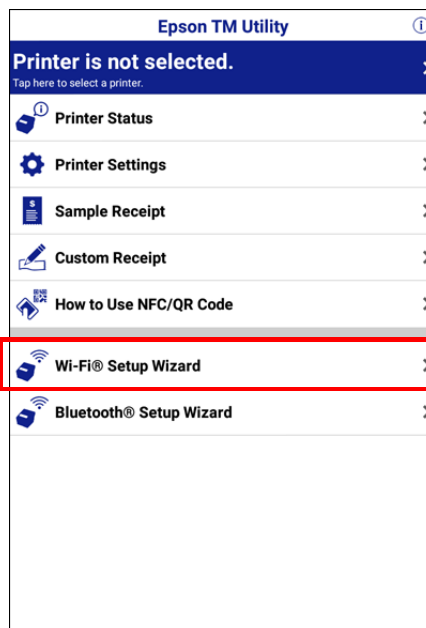
- TM printer fitted with this product
- Device for setting: iOS or Android™ device
- Utility for setting: Epson TM Utility for iOS or Epson TM Utility for Android

### Running Epson TM Utility

#### 1 Run the Epson TM Utility



#### 2 Set from “Wi-Fi Setup Wizard” in the menu.



### Setup and Operation Work flow

Select the network you want to connect to.  
Enter the passkey.  
Perform a test print.



## Setting up from a Windows Computer

### Necessary Items

Prepare the following items.

- TM printer fitted with this product
- Computer for setting: Computer equipped with Windows 10/8/7/Vista, and a wireless LAN function
- Utility for setting: EpsonNet Config or EpsonNet Config (Web version)

The setup procedure using EpsonNet Config is explained here.

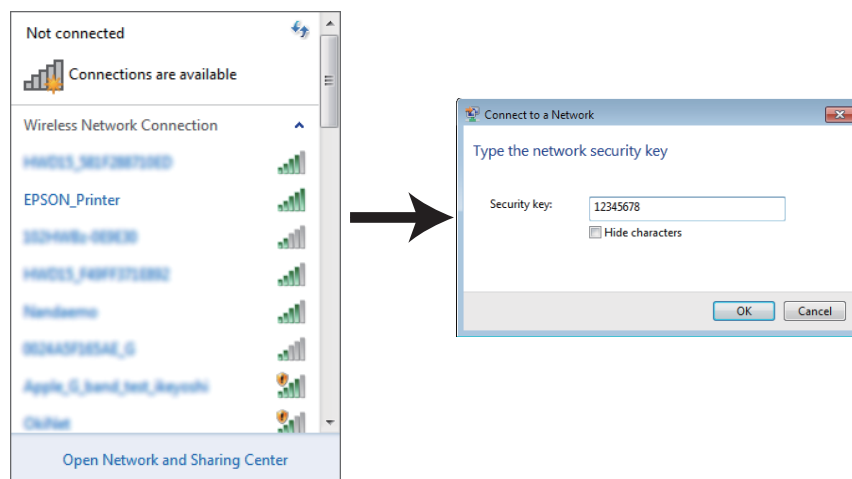
- 1 Turn on the computer.**
- 2 Activate Windows Wireless Network Connection and select [EPSON\_Printer] as the connection device on the screen that appears.**

If the window to enter a pass phrase appears, enter "12345678".

Default settings on printer are the following values.

Network mode	SimpleAP mode
SSID	EPSON_Printer
Pass phrase	12345678
IP Address	192.168.192.168

### An example of Connection Screen



#### NOTE

- For the setting method for the computer for setting, see the manual for your computer.
- If you are setting multiple TM printers, only turn on the power for the printer you are setting. You cannot set multiple printers at the same time.

When connecting to the printer is complete, setup the Wireless LAN by using the EpsonNet Config or EpsonNet Config (Web version).

For downloading and installation of the EpsonNet Config, see "[Software](#)" on page 19

EpsonNet Config (Web version) is a utility to configure the network and other settings on a web browser. For details, refer to the Technical Reference Guide of the printer or the interface board to which this product is fitted.

### 3 Start up the EpsonNet Config of the setting computer.

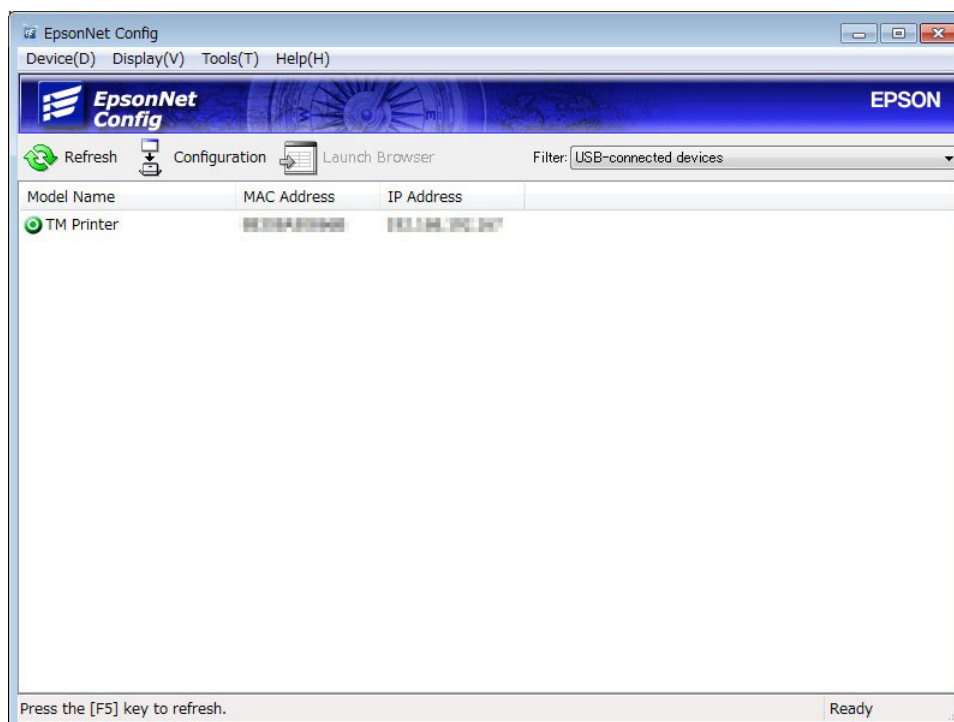
The tool automatically detects printers connected to the network and displays a list.

It may take up to a minute for the printer to be displayed in the list.

If it is not displayed, check that [Filter] is set to "(All)" or "Network-connected devices", then click [Refresh]. Or, select [Tools], then [Option], and check the settings of [Search Parameters].

### 4 Select the target printer, then click [Configuration].

If you cannot determine the target printer from the product name or the IP address, use the MAC address. You can check the printer's MAC address on the status sheet.



### 5 Configure the [Network] settings and the [TCP/IP] settings.

Select an item from the menu and change the setting. Be sure to confirm the necessary setting information with your network administrator.

### 6 Once you set the necessary items, click [Transmit].

The changed contents are sent to the printer and the printer settings are changed.

The connection with the setting computer is cut according to the setting item and it is not displayed in the "EpsonNet Config" window.

#### NOTE

For details about EpsonNet Config, see the manual (operation guide) installed together with the tool or the online help.

# Software

The following software is provided for application development.

## Utilities

Software	Description	Operating environment
<b>Epson TM Utility</b>	A utility that can be downloaded from App Store or Google Play™. Use to check and change setting values on the printer from iOS and Android devices. This utility also comes with the following sample printing functions: <ul style="list-style-type: none"> <li>• Sample receipt printing</li> <li>• Customized receipt printing</li> <li>• Printer status display</li> <li>• Quick pairing by NFC/QR code</li> <li>• Easy print by NFC/QR code</li> </ul>	iOS, Android
<b>EpsonNet Config</b>	A network setting tool for Epson network products.	Windows, Mac

## Download

You can obtain software and manuals from one of the following URLs.

For customers in North America, go to the following web site and follow the on-screen instructions.

<http://www.epsonexpert.com/>

For customers in other countries, go to the following web site:

<http://download.epson-biz.com/?service=pos>