



**TRENDNET**<sup>®</sup>



User's Guide

**TEW-MP1U**

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*This chapter provides an overview of your Wireless Print Server's features.*

## Features

Congratulations on the purchase of your new Wireless Print Server. Your Wireless Print Server was designed to provide a simple and efficient network printing solution. It is packed with features, including:

- **Wireless LAN Support.** Wireless stations supporting the IEEE 802.11b or IEEE 802.11g standard can interoperate with the Wireless Print Server. Both LAN and WLAN users can print to the attached printer.
- **Versatility.** The Wireless Print Server supports print, copy, scan and storage functions of a printer. It features a 10BaseT /100BaseTx Ethernet interface port for connection to your LAN and operating system support includes Microsoft Windows 2000, XP and Vista.
- **Easy Installation.** The Wireless Print Server makes adding printers or plotters to your network simple.
- **Web-based Interface.** The Web-based interface provides an easy method of configuration in TCP/IP networks regardless of your operating system.
- **Compact Size.** This allows the Wireless Print Server to be used even where space is limited.

## Safety Instructions

For your own safety, and to protect your Wireless Print Server, please observe the following safety advice.

1. Unplug this device from its power source before cleaning. Use only a slightly dampened cloth for cleaning. Do not use liquid or aerosol cleaners.
2. Avoid using this product near water. Exposure to water poses an electric-shock hazard.
3. Do not place the Wireless Print Server on an unstable surface. The device may fall causing serious damage to the device.
4. This device should only be used with the power supply type specified on the marking label. If you are not sure of type of your local power supply, consult your dealer or the local power company.
5. Do not pinch, crimp or otherwise damage the power cord. If exposed to foot traffic, ensures that the cable is properly shielded and does not pose a tripping hazard.
6. If using an extension cord, makes sure the total ampere rating of the products using the cord does not exceed the extension cord's ampere rating.
7. Do not attempt to service this device, as opening or removing casing may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
8. The Wireless Print Server should be serviced by qualified service personnel under the following conditions:
  - The power cord is damaged or frayed.
  - Liquid has been spilled onto the product.
  - The product has been exposed to rain or water.
  - The product does not operate normally in accordance with the operating instructions.
  - The device has been dropped or the casing has been damaged.

# Regulatory Approvals

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

## FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

## Channel

The Wireless Channel sets the radio frequency used for communication.

- Access Points use a fixed Channel. You can select the Channel used. This allows you to choose a Channel which provides the least interference and best performance. In the USA and Canada, 11 channels are available. If using multiple Access Points, it is better if adjacent Access Points use different Channels to reduce interference.
- In "Infrastructure" mode, Wireless Stations normally scan all Channels, looking for an Access Point. If more than one Access Point can be used, the one with the strongest signal is used. (This can only happen within an ESS.)
- If using "Ad-hoc" mode (no Access Point), all Wireless stations should be set to use the same Channel. However, most Wireless stations will still scan all Channels to see if there is an existing "Ad-hoc" group they can join.

Note: This equipment marketed in USA is restricted by firmware to only operate on 2.4G channel 1-11

## Package Contents

You should find the following items packaged with your Wireless Print Server. If any items are missing, contact your dealer immediately.

- The Wireless Print Server unit
- Power Adapter
- One CD-ROM containing all support programs and this manual
- Quick Install Guide

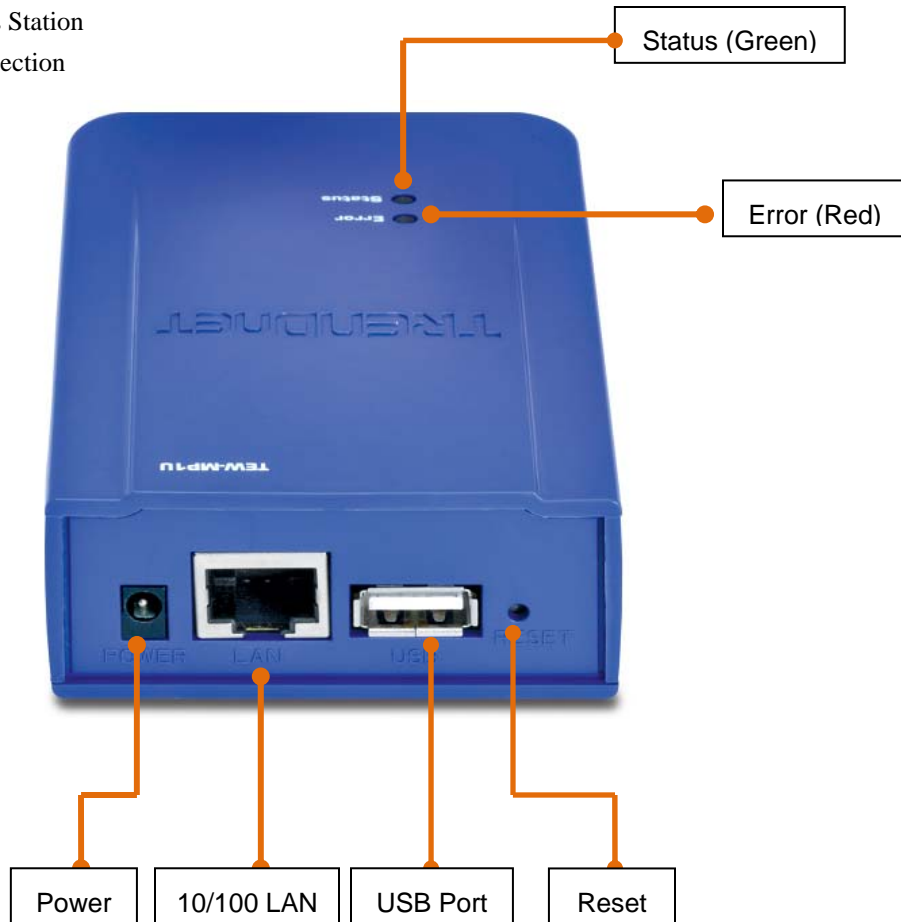


## Physical Details

Details of the LEDs and connections are in this Chapter. Further details are contained in *Appendix A - Specifications*.

### TEW-MP1U

- 1 USB Printer Port
- IEEE 802.11g/802.11b Wireless Station
- 10BaseT/100BaseTx LAN connection



**Figure 1: TEW-MP1U**

## LED Indicators

The Wireless Print Server has LED indicators on the top. The Error LED is red. The Status indicator LED is green. The LED indicator modes are described in the following table.

Status LED (Green)	Error LED (Red)	Status Description
Off	Off	No power.
On	Off	Normal operation - Idle.
Flashing	Off	Normal operation - transmitting or receiving packets from the network.
On	On	No printer connected.
Flashing	Flashing	Firmware upgrade in progress.

## Diagnostic Push Button

The button is recessed; a pin or paper clip can be used to press it. This button has 2 functions:

- Restore the factory default settings
- Print a test page containing all current settings.

### To restore the factory default settings:

1. Turn the Wireless Print Server OFF.
2. Press and hold the diagnostic button. While pressing the button, switch the Wireless Print Server ON.
3. If you continue pressing the button for 10 seconds, a diagnostic page will be printed, showing the new (default) settings.

### To generate a Diagnostic print out

1. Ensure that both the Wireless Print Server and the attached printer are ON.
2. Press the diagnostic button, and hold it in for 2 seconds.
3. The test page, containing the current settings, will be printed.

#### Note:

PostScript printers are unable to print this page. If you have a PostScript printer, the test page will not be printed.

*This chapter provides an overview of the configuration process.*

### Overview

The Wireless Print Server is designed to support many different platforms, and the configuration required would depend upon the environment in which it is installed.

- The Wireless Print Server usually requires configuration, but if there's a DHCP server on your network, then the device is just plug-and-play. A Windows-based setup Wizard is also provided on the CD-ROM to simplify this task.
- PCs wishing to use the printer attached to the Wireless Print Server always require configuration.

### Configuration Methods

The following methods are available to perform the required Wireless Print Server configuration:

- **Windows-based Wizard** - see below for details.
- **Web-based setup** - see Chapter 4 for details.

### Using the Windows Wizard

The Windows-based Wizard is supplied on the CD-ROM, and runs on Windows XP and Windows Vista.

Using this Wizard is the recommended method to configure the Wireless Print Server.

It can be used to configure the Wireless Print Server for your Network environment, even if the Wireless Print Server does not have a valid IP address.

### Preparation

- Ensure the power is OFF. Do not connect the Wireless Print Server while power is On.
- Find the *Default Server Name* for your Wireless Print Server. The *Default Server Name* is shown on a sticker on the base of the device. It consists of 8 letters and/or digits. Record this name; it may be needed during configuration.
- Check the wireless and IP settings of the Access Point which your PC is connecting to.

### Procedure

1. Insert the supplied CD-ROM into your drive. If the setup program does not start automatically, run *Autorun.exe* in the root folder.
2. On the first screen, shown below, click *Setup Wizard*.





**Figure 2: Main Screen**

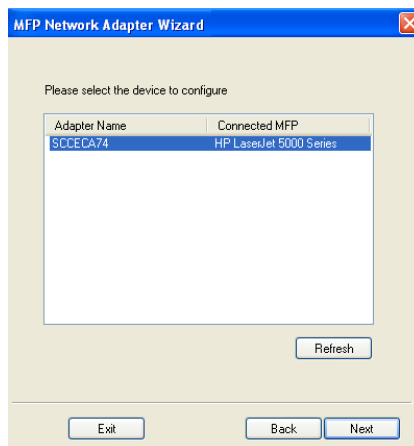
3. Click *OK* to follow the setup procedures:
  - (1) Connect MFP/All-in-one machine to Wireless Print Server.
  - (2) Connect both PC and Wireless Print Server to Router or Hub.
  - (3) Power ON MFP/All-in-one.
  - (4) Power ON Wireless Print Server.
  - (5) Check the LED on the Wireless Print Server. Status LED (Green) should be ON and Error LED (Red) is OFF.



- To use the LAN interface, the LAN cable needs to be inserted **BEFORE** powering ON.
- The Wired (LAN) interface should be used for initial configuration.
- In the default Wireless "Infrastructure" mode, connecting a LAN cable will disable the Wireless interface.

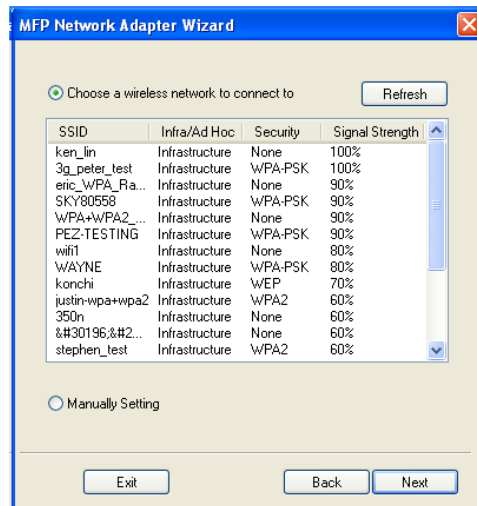
Or click *Skip* if all the above steps have been done already.

4. Select your Wireless Print Server, then click *Next* to continue.



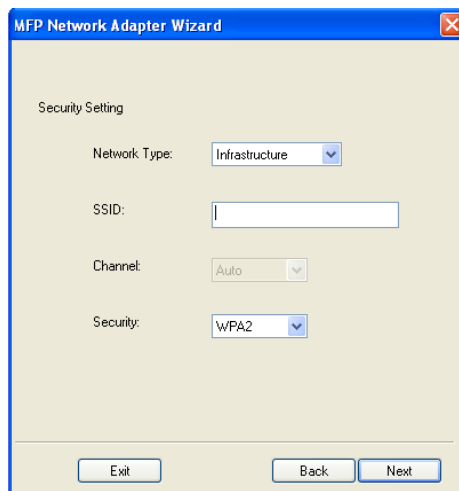
**Figure 3: Wizard Screen**

5. Select the desired Access Point. If the Access Point does not show up, click the Refresh button.



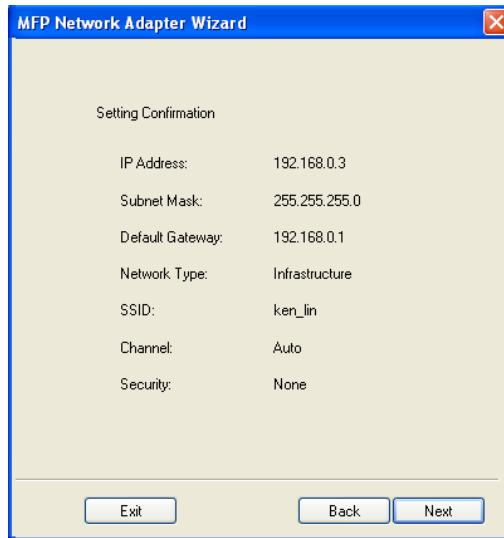
**Figure 4: Wireless Network Screen**

- If you select the *Manually Setting*, click *Next* to move to the *Security Setting* screen.



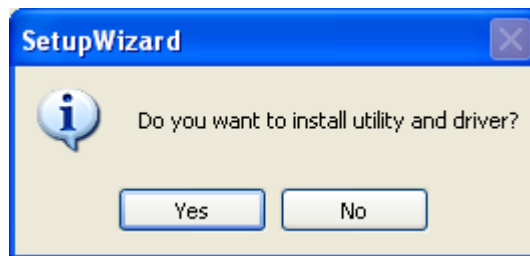
**Figure 5: Security Setting Screen**

- For the Security Setting screen:
  - Network Type - Select the correct value for your Wireless LAN.
  - SSID - All Wireless stations MUST use the same SSID to communicate with one another.
  - Channel -If "Automatic" is selected, the Access Point will select the best available channel.
  - Security - There are 4 options for Wireless Security
    - Disable - no data encryption is used.
    - WEP - the 802.11b standard. Data is encrypted before transmission, but the encryption system is not very strong.
    - WPA-PSK - data is encrypted using the Wi-Fi Protected Access with Preshared Key standard. WPA is wireless security with far greater protection than WEP. WPA-PSK offers two encryption methods, TKIP and AES, with dynamic encryption keys.
    - WPA2 - this is a further development of WPA-PSK, and offers even greater security.
- Click *Next* to configure the *IP Address* screen.
  - Select *Obtain IP Address automatically* if your LAN has a DHCP Server, otherwise select *Use following IP address*.
  - For *Use following IP address*, enter an unused address from the range used on your LAN. Use the same *Subnet Mask* and *Default Gateway* as PCs on your LAN.
- Click *Next* to see the following screen.



**Figure 6: Status Screen**

10. Click *Next* and you will see the following prompt.



11. Click *Yes* to install the utility and bus driver. Follow the prompts to complete the installation.

12. Click *Finish*.

**If the desired Wireless Print Server is not listed:**

- Check that both the Wireless Print Server and the printer are properly connected, and powered on.
- Check that the proper Printer Driver has been installed.

## Other PCs Setup

If the Wireless Print Server is configured already, and you want other client PCs to use it, do the following procedure:


1. Insert the supplied CD-ROM into your drive. If the setup program does not start, run *Autorun.exe* in the root folder.
2. Click *PC Install* to install the utility and bus driver.

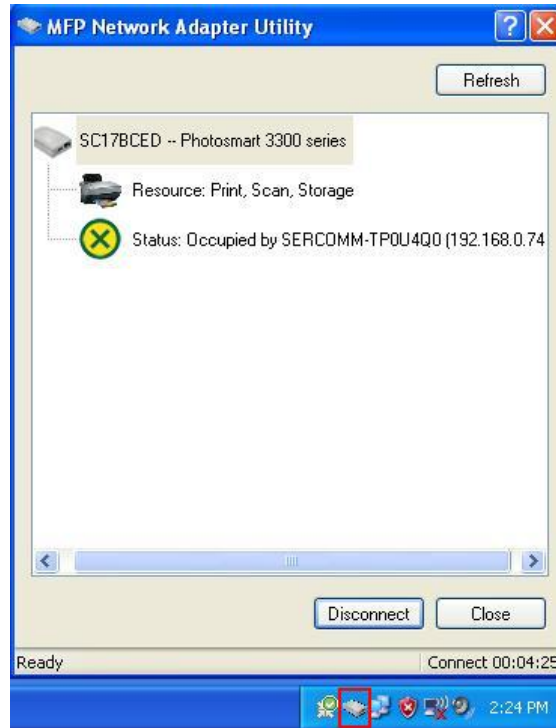


**Figure 7: Main Screen**

3. Follow the prompts to complete the installation.
4. The Wireless Print Server Utility will then run.

## Wireless Print Server Utility Setup

1. The program will search for the Wireless Printer Servers on the network, and the *Wireless Print Server Utility* screen will be displayed.
  - The names of the attached printer servers will be displayed if possible.
  - If the printer is occupied by other user, the status field will display the information of the user and IP address. Otherwise the default status icon should be  if the printer is available.

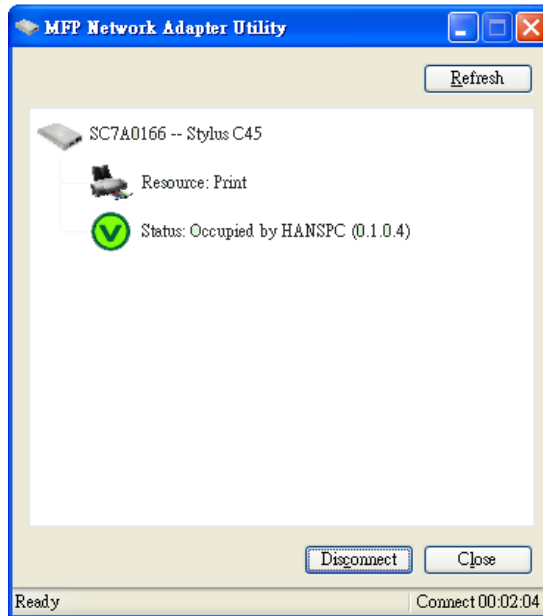


**Figure 8: Wireless Print Server Icon**

### **If your Wireless Print Server is not listed:**

- Check that both the Wireless Print Server and the printer are properly connected, and powered on.
- Check that the proper Printer Driver has been installed.

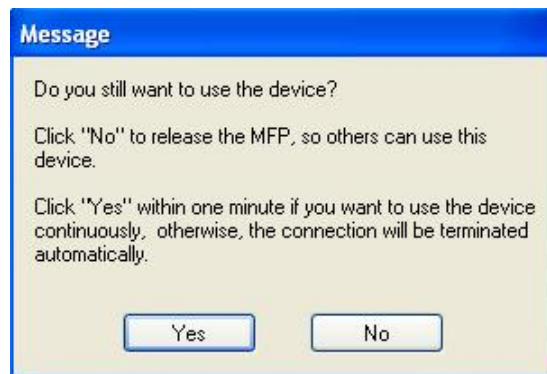
2. Once the Wireless Print Server has been connected successfully, the button will show "Disconnect" instead of "Connect".



**Figure 9: Utility Screen**

3. Configuration is now complete.

**Note:** If Wireless Print Server has been idled for 5 minutes after connected, you will see the following message.



**Figure 10: Idle Message**

The Wireless Print Server will be disconnected automatically if you don't respond to the message within 1 minute.

# Chapter 3

## Management

# 3 Web-Based

*This chapter explains how to use your Web Browser to configure the Wireless Print Server.*

### Overview

The Wireless Print Server incorporates the HTTP server. This allows you to connect to the Wireless Print Server and configure it using your Web Browser. Most browsers should work, provided they support tables and forms.

### Preparation

Because it supports dynamic IP Address allocation using DHCP or BOOTP, the Wireless Print Server ships with an IP Address of 0.0.0.0.

This is NOT a valid IP Address.

Therefore, you must do ONE of the following:

- Check your **DHCP server** (if you have one), and determine the IP Address allocated to the Wireless Print Server.
- Use the **Diagnostic Button** (if fitted) to print a report which includes the current IP address. (Press the Diagnostic Button, and hold it for 2 seconds.)
- Use the **Setup Wizard** or another Wireless Print Server utility to allocate a valid IP Address to the Wireless Print Server.

### Connecting to the Wireless Print Server

1. Start your Web Browser.
2. In the *Address* box, enter *HTTP://* followed by the IP Address of the Wireless Print Server.  
e.g. `http://192.168.0.100`
3. You will then be prompted for the password. If no password has been set, just press ENTER.
4. Use the menu bar to move from one screen to another. Remember to save each screen before changing to a different screen.

## Configuration Screens

The following configuration screens are available.

### TCP/IP

**TRENDNET** 1-Port Wireless G Multi-Function USB 2.0 Print Server  
TEW-MP1U

Server Status  
Printer Status  
Configure Server  
Wireless  
Basic  
Security  
TCP/IP  
Reset

**TCP/IP**

Settings for the TCP/IP network protocol.  
Using a fixed IP Address is recommended.

IP Address:  DHCP Client  
 Fixed IP Address:

Device IP Address

Subnet Mask

Gateway Address

Delay before reconnection attempt (secs)  (0..255)

Number of reconnection attempts  (0..255)

Get Defaults Save Cancel

**Figure 11: TCP/IP Screen**

IP Address	
<b>DHCP Client</b>	Select this if your LAN has a DHCP Server. The Wireless Print Server will then automatically obtain an IP address from the DHCP Server.
<b>Fixed IP Address</b>	Select this to assign a fixed IP address to the Wireless Print Server. If selected, you must enter the Device IP Address, Subnet Mask, and Gateway.
<b>Device IP Address</b>	IP Address assigned to the Wireless Print Server. Enter an unused IP address from the address range used on your LAN.
<b>Subnet Mask</b>	Use the same values as PCs on your LAN (or on the same LAN segment, if you have a Router).
<b>Gateway Address</b>	Use the same values as PCs on your LAN (or on the same LAN segment, if you have a Router).
Connection	
<b>Delay before reconnection attempt</b>	Sets how long the Wireless Print Server should wait before retrying a TCP/IP connection which is lost. Allowable values are from 0 to 255 seconds, with 2 as the default.
<b>Number of reconnection attempts</b>	Set how many attempts at reconnection will be made. After that, the TCP/IP session will be terminated. Allowable values are from 0 to 255, with 254 as the default.



## Wireless Configuration

There are 2 options on the menu for Wireless configuration - **Basic** and **Security**.

### Wireless - Basic

The settings on this screen must match the other Wireless stations in order for communication to occur.

The screenshot shows the 'Wireless' configuration page. At the top, it says 'TRENDNET' and '1-Port Wireless G Multi-Function USB 2.0 Print Server TEW-MP11U'. A blue banner at the top of the main content area reads 'SSID must match the other Wireless stations.' Below this, the 'Configuration:' section includes:
 

- Region or Domain: USA
- Station Name: 00-C0-02-80-15-05
- Network Type: Infrastructure (dropdown menu)
- SSID: Trendnet (text input field)
- Channel No.: 6 (dropdown menu)

 At the bottom right is a 'Link Info' button. At the bottom center are 'Get Defaults', 'Save', and 'Cancel' buttons. On the left side, there is a navigation menu with options: Server Status, Printer Status, Configure Server, Wireless, Basic, Security, TCP/IP, and a 'Reset' button at the bottom.

**Figure 12: Wireless Screen**

Configuration	
<b>Region or Domain</b>	Select your region from the drop-down list.  This field displays the region of operation for which the wireless interface is intended. It may not be legal to operate the router in a region other than the region shown here. If your country or region is not listed, please check with your local government agency for more information on which channels you are allowed to use, and select a region, which allows those channels. (The channel list changes according to the selected region.)
<b>Station name</b>	This is the same as the <i>Device (Host) Name</i> on the WAN screen. On your PC, some Wireless status screens may display this name as the Access Point in use.
<b>Network Type</b>	Select the correct value for your Wireless LAN. <ul style="list-style-type: none"> <li>• <b>Infrastructure</b> mode is used when each Wireless station connects to the Wireless Access point. This also provides access to the wired LAN.</li> </ul>
<b>SSID (ESSID)</b>	To communicate, all Wireless stations <b>MUST</b> use the same SSID/ESSID. The default value is blank (null). <b>Note! The SSID is case sensitive.</b>
<b>Channel No.</b>	In Infrastructure mode, this setting has not effect – the Access Point determines the Channel used.
<b>Link Info Button</b>	Click this button to open a sub screen displaying link information.

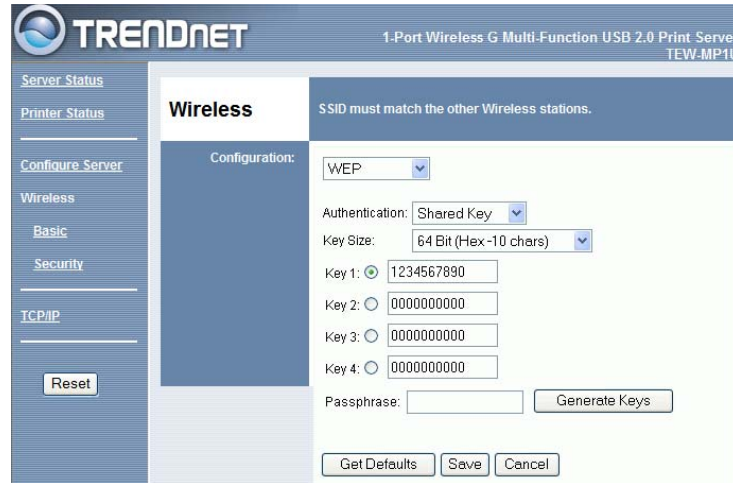
### Wireless Security Screen

There are 4 options for Wireless security:

- **Disabled** - no data encryption is used.
- **WEP** - data is encrypted using the WEP standard.
- **WPA-PSK** - data is encrypted using the WPA-PSK standard. This is a later standard than WEP, and provides much better security than WEP. Use this if possible.
- **WPA2-PSK** - this is a further development of WPA-PSK, and offers even greater security.

## Wireless Security - WEP

If "WEP" is selected, the screen will look like the following example.



**Figure 13: WEP Screen**

<b>Security System</b>	<b>WEP</b> The 802.11b standard. Data is encrypted before transmission, but the encryption system is not very strong.
<b>Authentication</b>	Select the appropriate value, as used on your Wireless LAN - "Open System" or "Shared Key."
<b>Key Size</b>	Select the WEP Encryption level: <ul style="list-style-type: none"> <li>• <b>64-bit</b> (sometimes called 40-bit) encryption</li> <li>• <b>128-bit</b> encryption (sometimes called 104 bit encryption)</li> </ul> This selection also allows you to choose the input type for the keys - Hex or ASCII.
<b>Keys</b>	<ul style="list-style-type: none"> <li>• Use the radio buttons to select the default key.</li> <li>• Enter the key value(s) you wish to use. Other stations must have the same key values.</li> <li>• Keys can be entered in Hex or ASCII, according to your <i>Key Size</i> selection. Hex characters are the digits (0 ~ 9) and the letters A ~ F.</li> </ul>
<b>Passphrase</b>	Enter some printable characters in the Passphrase field and click the "Generate Keys" button to automatically configure the WEP Key(s). For 64 bit keys, four keys fields will be generated. For 128 bit keys, only the selected WEP key will be generated.

## Wireless Security - WPA-PSK

If "WPA-PSK" is selected, the screen will look like the following example.

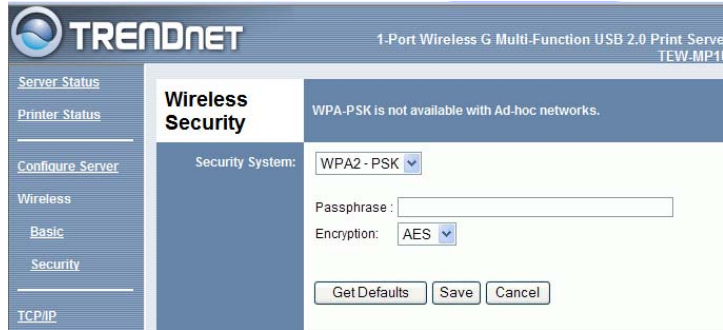


**Figure 14: WPA-PSK Screen**

<b>Security System</b>	<p><b>WPA-PSK</b></p> <p>Like WEP, data is encrypted before transmission. WPA is more secure than WEP, and should be used if possible. WPA-PSK is the version of WPA, which does NOT require a Radius Server on your LAN.</p>
<b>Passphrase</b>	<p>Enter the Keyword key value. Data is encrypted using a key derived from the PSK. Other Wireless Stations must use the same PSK. The PSK must be from 8 to 63 characters in length.</p>
<b>Encryption</b>	<p>Select the desired option. Other Wireless Stations must use the same method.</p>

## Wireless Security - WPA2-PSK

If "WPA2-PSK" is selected, the screen will look like the following example.



**Figure 15: WPA2-PSK Screen**

<b>Security System</b>	<b>WPA2-PSK</b> This is a further development of WPA-PSK, and offers even greater security.
<b>Passphrase</b>	Enter the Keyword key value. Data is encrypted using a key derived from the PSK. Other Wireless Stations must use the same PSK. The PSK must be from 8 to 63 characters in length.
<b>Encryption</b>	Select the desired option. Other Wireless Stations must use the same method.

## Other Screens

### Server Status

This screen shows server system data and the current settings for all of the other screens. It is read-only; no data can be input on this screen.

### Printer Status

This screen displays the current status of each port. For each port, the following data is listed:

- **Connected Printer**- the model name of the printer connected to the port, if the printer name is known. (If the printer is not bi-directional, this information is unavailable.)
- **Status** - the current status of the printer (On-line, Off-line, Out of paper)
- **Printing Information** - this will show either *Idle* or *Printing*.

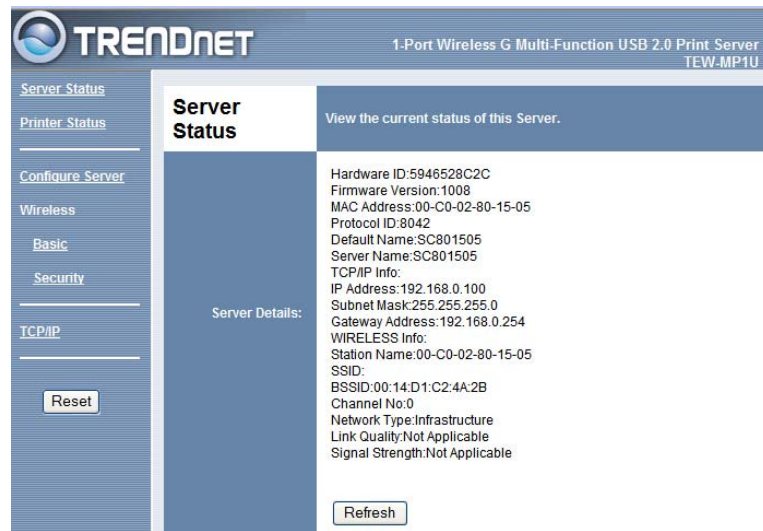


Figure 16: Server Status Screen



Figure 17: Printer Status Screen

**General Specifications**

<b>TEW-MP1U</b>	
Power Consumption	5.5w max.
External Power Adapter	5V DC
LEDs	2
USB 2.0 Port	1
Ethernet Connector	10BaseT/100BaseTx
FCC / CE	FCC, CE. Class B

<b>Environmental Specifications</b>	
Operating Temperature	0 ~ 40°C
Storage Temperature	-10 ~ 70°C
Shipping Temperature	-40 ~ 70°C
Operating Humidity	10 ~ 80%
Storage Humidity	5 ~ 90%
Shipping Humidity	5 ~ 100%



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## Customer Support

Visit [www.trendnet.com/support](http://www.trendnet.com/support)

Email:

[support@trendnet.com](mailto:support@trendnet.com)



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**Toll Free Telephone:** +00800 60 76 76 67

English/Espanol - 24/7

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**Worldwide**

**Telephone:** +[31] [0] 20 504 05 35

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## Product Warranty Registration

Please take a moment to register your product online.

Go to TRENDnet's website at <http://www.trendnet.com/register>

**TRENDNET<sup>®</sup>**

20675 Manhattan Place

Torrance, CA 90501

USA