User's Guide





150Mbps Wireless N PCI Adapter
Low Profile 150Mbps Wireless N PCI Adapter

TEW-703PI / TEW-703PIL

Contents

Product Overview	1
Package Contents	1
Features	1
TEW-703PI	1
TEW-703PIL	1
Product Hardware Features	2
LED	2
Application Diagram	2
Software Installation and Configurations	3
Utility Installation	3
Utility Configurations	4
General	4
Profile	4
Available Networks	6
Status	6
Statistics	7
WPS	7
Technical Specifications	11
Limited Warranty	15

TEW-703PI / TEW-703PIL

Product Overview



TEW-703PI

TEW-703PIL

Package Contents

The package includes:

- TEW-703PI or TEW-703PIL Wireless N PCI Adapter
- Quick Installation Guide
- CD-ROM (Utility & Drivers)

If any package contents are missing or damaged, please contact the retail store, online retailer, or reseller/distributor that the item was purchased.

Features

TEW-703PI

The 150Mbps Wireless N PCI Adapter, model TEW-703PI, connects a desktop computer to a high speed wireless n network.

This adapter installs quickly to a free PCI slot on a Window's based desktop computer. An LED conveys wireless connection status. Advanced wireless encryption protects your valuable data. A detachable antenna gives users the ability to change the connected antenna. Stream media, download files, and play games on a desktop computer over a wireless connection.

- High performance wireless n connectivity for a desktop computer
- LED indicator conveys connection status
- Detachable antenna
- Advanced wireless encryption

TEW-703PIL

The 150Mbps Low Profile Wireless N PCI Adapter, model TEW-703PIL, connects a low profile desktop computer to a high speed wireless n network.

This adapter installs quickly to a free PCI slot on a Window's based low profile desktop computer. An LED conveys wireless connection status. Advanced wireless encryption protects your valuable data. A detachable antenna gives users the ability to change the connected antenna. Stream media, download files, and play games on a desktop computer over a wireless connection.

- High performance wireless n connectivity for a low profile desktop computer
- LED indicator conveys connection status
- Detachable antenna
- Advanced wireless encryption

*Maximum wireless signal rates are referenced from IEEE 802.11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials and other conditions.

Product Hardware Features



TEW-703PI

TEW-703PIL

LED

Link

A green Link LED indicator lights up when the TEW-703PI / TEW-703PIL Wireless N PCI Adapter is connected to a wireless network successfully.

ACT (Activity)

The ACT LED indicator blinks green when the 802.11n Wireless LAN Adapter is transmitting or receiving data.

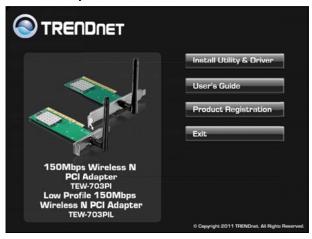
Application Diagram



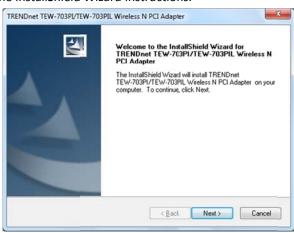
Software Installation and Configurations

Utility Installation

1. Insert the Utility and Driver CD-ROM into your computer's CD-ROM drive and then click **Install Utility & Driver** button.



Follow the InstallShield Wizard Instructions.



3. Click Finish to restart the computer.



4. After the computer is rebooted, plug the Wireless N USB Adapter into an available USB slot on your computer.

Utility Configurations

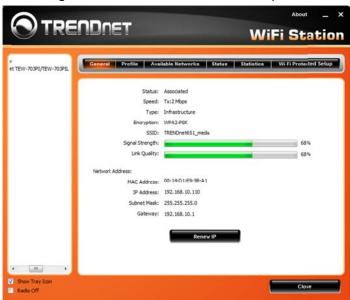
The user can configure the wireless settings using the Wireless Adapter Configuration Utility. Double-click the utility icon that appears in the taskbar.



The Wireless Adapter Configuration Utility is divided into six sections: General, Profile, Available Networks, Status, Statistics and WPS.

General

This screen shows the general information of the wireless adapter.



Status: Shows connection status.

Speed: Shows the transmission and the reception data rate.

Type: Shows the connection type, Infrastructure or Ad-Hoc mode.

Encryption: Shows the current encryption type used.

SSID: Shows the current SSID, which must be the same as your wireless access point or router in order to establish the connection correctly.

Wireless Mode: Shows the current wireless mode used.

Signal Strength: Shows the wireless signal strength of the connection between the adapter and the Access Point or router.

Link Quality: Shows the statistics of data transfer, and the calculation is based on the number of packets transmitted and received.

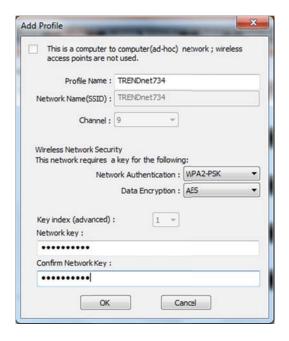
Network Address: Shows the MAC address and IP address of the adapter.

Profile

The user can create and manage the created profiles for home, work or public areas. By double-clicking on one of the created profile, the setting will adjust to the specific setting such as SSID, channel, and encryption as saved by that particular profile.



Add: Adds a profile. The following screen will appear. The user can enter the necessary information required for accessing the particular Access Point or Wireless Router. Or you can search the desire wireless router or AP under **Available Networks** section and click on **Add Profile** button to add the Profile.



Remove: Deletes the selected profile

Edit: Edit an exist profile. The screen will back to profile. Edit the SSID and select the Wireless Mode, Authentication and Encryption then click **Apply** to save the profile. When the Profile name was changed, a new profile will be added in the list.

Duplicate: Duplicate the selected Profile.

Set Default: Set the selected Profile as default connection.

Wireless Network Security: The following options are available: Open System, Shared Key, WPA-PSK, WPA2-PSK, WPA EAP-TLS, WPA2 EPA-TLS. Select Open System, Shared Key for WEP data encryption feature.

Open or Shared Key

Open System and **Shared Key** require the user to set a WEP key to exchange data with other wireless clients that have the same WEP key. WEP is considered basic level of wireless encryption, if you would like higher security connection, WPA2 encryption is recommended.

- Default Key: select one of the 4 keys to use.
- Network Key: choose the encryption way, either in HEX or ASCII formats, and enter the password in the blank space.
- Key Length: select 64 or 128 bits as the length of the keys
 Key Format: HEX or ASCII

Key Length	Hex	ASCII
Туре	characters 0-9, A-F, a-f	alphanumeric format
64-bit	10 characters	5 characters
128-bit	26 characters	13 characters

WPA-PSK / WPA2-PSK

If using the **WPA-PSK/WPA2-PSK** authentication method, please select the *Encryption* type for TKIP or AES then enter the Passphrase key. The minimum length is 8 characters.

WPA EAP-TLS

If using the **WPA/WPA2 EAP-TLS** authentication method, please select the *Encryption* type for TKIP or AES then select the *WPA/WPA2 Certificate* from drop down list.

Available Networks

This screen allows the user to scan for available wireless network. It also allows the user to establish wireless communications with a target device.



Available Networks – displays the wireless networks (wireless clients, access points or routers) that are within range.

Select any one of the wireless networks and connect to it by double-clicking.

Click the "Refresh" button to rescan for available networks.

Status

Display the information of the adapter including manufacturer, driver version, utility version, encryption, encryption type, region, adapter's MAC address, current connection data rate, channel, connection status, the associated router or Access Point's SSID, network type, associated device's MAC address, and Up time.



SSID: Service Set Identifier, which is a unique name shared among all wireless clients in a wireless network. The SSID must match the wireless access point or router's SSID that you are connecting to.

Network Type:

- Infrastructure to establish wireless communication with the LAN and other wireless clients through the use of Access Points or Wireless Router. This is most common type of connection.
- Ad-Hoc to establish point-to-point wireless communication directly with other wireless client devices.

Statistics

This section displays the statistics of the adapter connection. TX means transmission and RX means Reception.



WPS

Wi-Fi Protected Setup (WPS) is an optional certification program from the Wi-Fi Alliance that is designed to ease the task of setting up and configuring security on a wireless network. There are two methods used in the WPS as below instruction.

Push Button

Using the WPS configuration with the **Push Button** method, the configuration steps as below:



L) Click on the "Push Button Config (PBC)" button.



- 2) Push the WPS button on your wireless access point or router.
- 3) Cliek the **Nex**t button start the WPS configuration.
- 4) If the WPS configuration was successful, the follow window will show on.



5) If the WPS configuration was failed, the follow window will show on.



Enter a PIN

Using the WPS configuration with the **PIN Input** method, the configuration steps as below:

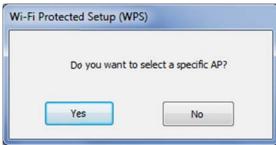
1) Click on the **Pin Input Config (PIN)** button, the PIN is shown on the button of the windows.



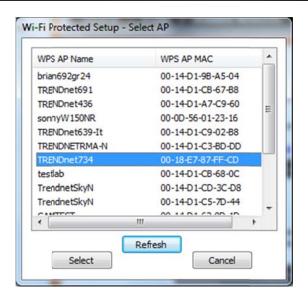
2) Enter the PIN code into the WPS "Client PIN number" of you wireless access point or router (in example, TRENDnet TEW-734GR 300Mbps Wireless N Gigabit Router)then click the **Start PIN** button, the wireless access point or router will start the WPS configuration process.



3) Choose to select the specific AP/Router or a WPS enabled device with client PIN entered.



4) Select a wireless access point or router then click the *Select* button start the WPS configuration.





5) If the WPS configuration was successful, the follow window will show on.



6) If the WPS configuration was failed, the follow window will show on. Try to repeat the steps again if this screen appears.



TEW-703PI / TEW-703PIL

Technical Specifications

Hardware	
Interface	32-Bit PCI 2.1 Bus
Standards	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
LED Indicator	Link/ Activity
Power Consumption	Receive mode: 350mA (max.)
	Transmit mode: 400mA (max.)
Supported OS	Windows 7 (32/64-bit), Vista (32/64-bit), XP (32/64-bit)
Dimensions	120 x 44 mm (4.7 x 1.75 in.)
Weight	55 g (1.8 oz)
Temperature	Operating: 0° ~ 40° C (32° ~ 104° F)
	Storage: -10° ~ 70° C (14° ~ 158° F)
Humidity	95% max. (non-condensing)
Certifications	CE, FCC
Wireless	
Modulation	DBPSK/DQPSK/CCK/OFDM (BPSK/QPSK/16-QAM/64-QAM)
Antenna	1 x 2dBi dipole detachable antenna with Reverse SMA connector
Frequency	2.412 ~ 2.484 GHz
Data Rate (auto	802.11b: up to 11Mbps
fallback)	802.11g: up to 54Mbps
	802.11n: up to 150Mbps
Output Power	802.11b: 15dBm (typical)
	802.11g: 14dBm (typical)

	802.11n: 12dBm (typical)
Receiving Sensitivity	802.11b: -84dBm (typical) at 11Mbps
	802.11g: -65dBm (typical) at 54Mbps
	802.11n: -61dBm (typical) at 150Mbps
Encryption	64/128-bit WEP (Hex & ASCII), WPA/WPA2 (TKIP/AES), WPA-PSK/WPA2-PSK
Channels	1~11 (FCC), 1~13 (ETSI)

Federal Communication Commission Interference 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

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

SAR compliance has been established in typical laptop computer(s) with USB slot, and product could be used in typical laptop computer with USB slot. Other application like handheld PC or similar device has not been verified and may not compliance with related RF exposure rule and such use shall be prohibited.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

For Taiwan 警語:

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得 擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

EN60950-1: 2006

Safety of Information Technology Equipment

EN 62311: 2008

Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300GHz)

EN 300 328 V1.7.1 (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

EN 301 489-1 V1.8.1 (2008-04)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

EN 301 489-17 V1.3.2 (2008-04)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.



් Česky [Czech]	TRENDnet tímto prohlašuje, že tento TEW-703PI / TEW-703PIL je ve shodě se základními požadavky a dalšími příslušnými
[CZECII]	ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TEW-703PI / TEW-703PIL overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TEW-703PI / TEW-703PIL in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TEW-703PI / TEW-703PIL vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this TEW-703PI / TEW-703PIL is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente TRENDnet declara que el TEW-703PI / TEW-703PIL cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ TRENDnet ΔΗΛΩΝΕΙ ΟΤΙ TEW-703PI / TEW-703PIL ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TEW-703PI / TEW-703PIL est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano [Italian]	Con la presente TRENDnet dichiara che questo TEW-703PI / TEW-703PIL è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo TRENDnet deklarē, ka TEW-703PI / TEW-703PIL atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TEW-703PI / TEW-703PIL atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TEW-703PI / TEW-703PIL in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TEW-703PI / TEW-703PIL jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TEW-703PI / TEW-703PIL megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym TRENDnet oświadcza, że TEW-703PI / TEW-703PIL jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	TRENDnet declara que este TEW-703PI / TEW-703PIL está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
뢰Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TEW-703PI / TEW-703PIL v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	TRENDnet týmto vyhlasuje, že TEW-703PI / TEW-703PIL spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
fi Suomi [Finnish]	TRENDnet vakuuttaa täten että TEW-703PI / TEW-703PIL tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar TRENDnet att denna TEW-703PI / TEW-703PIL står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

TRENDnet User's Guide Limited Warranty

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TEW-703PI / TEW-703PIL - 3 Years Warranty

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 year warranty.

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

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Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

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PWP05202009v2 2011/10/15



Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com/register

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