User's Guide

TRENDNET®

AC1200 WiFi Range Extender

TEW-822DRE

Table of Contents

Product Overview

TEW-822DRE

Features

TRENDnet's AC1200 WiFi Range Extender, model TEW-822DRE, offers extreme wireless coverage to eliminate existing wireless network dead spots. Setup takes minutes with no drivers to install and it stays out of the way by plugging directly into an outlet. Connect to either an existing WiFi N or WiFi AC router and extend concurrent WiFi N and AC networks into an area with low or no wireless.

Easy Setup
Quick intuitive setup connects to either a WiFi AC or WiFi N network and adopts existing WiFi settings

AC1200 Dual Band
Broadcasts concurrent high speed 867 Mbps WiFi AC + 300 Mbps WiFi N networks

Extreme Coverage
Adjustable external antennas, high power amplifiers, and multiple antenna technology produces extreme wireless coverage

Gigabit Port
Gigabit port extends a high performance connection to a wired device

No Clutter
The extender plugs directly into an outlet

Operating Modes
External switch toggles between Extender (connects to a WiFi network) and Access Point (connects to a wired network) modes

Encrypted Wireless
Supports the latest encryption standards

Compatibility
Compatible with legacy wireless devices

Targeted Beamforming
 Increased real-time performance by directing stronger wireless signals to a device's specific location

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.
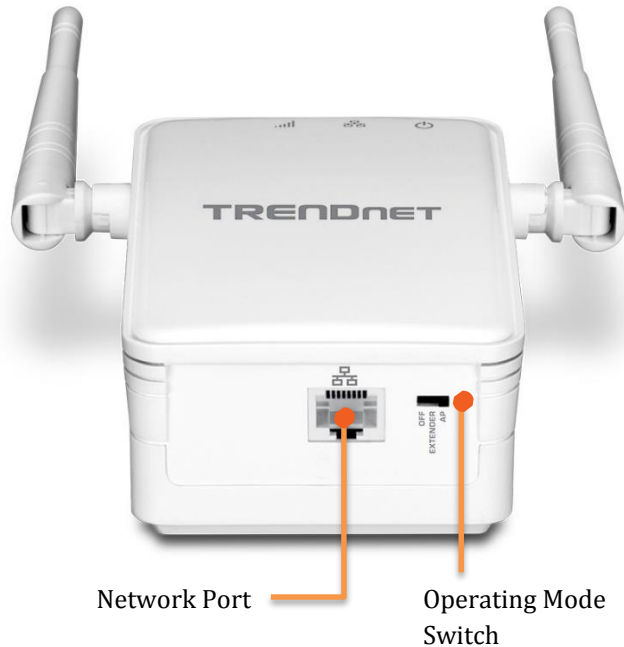
Package Contents

TEW-822DRE package includes:

- TEW-822DRE
- Multi-Language Quick Installation Guide
- CD-ROM (User's Guide)

If any package content is missing or damaged, please contact the retail store, online retailer, or reseller/distributor from which the product was purchased.

Hardware Features

Network Port   Operating Mode
                                Switch

Network Port	Connect a network cable (Ethernet cable) to your network when operating in AP (Access Point) mode.
Operation Mode Switch	Switch the **Operation Mode Switch** to **Off** to turn off the wireless. Position the switch to **Extender** to operate TEW-822DRE in range extender mode. Position the switch to **AP** to work in access point mode.

Power Plug

WPS Button   Power Plug
      +   Release Button
LED Indicator
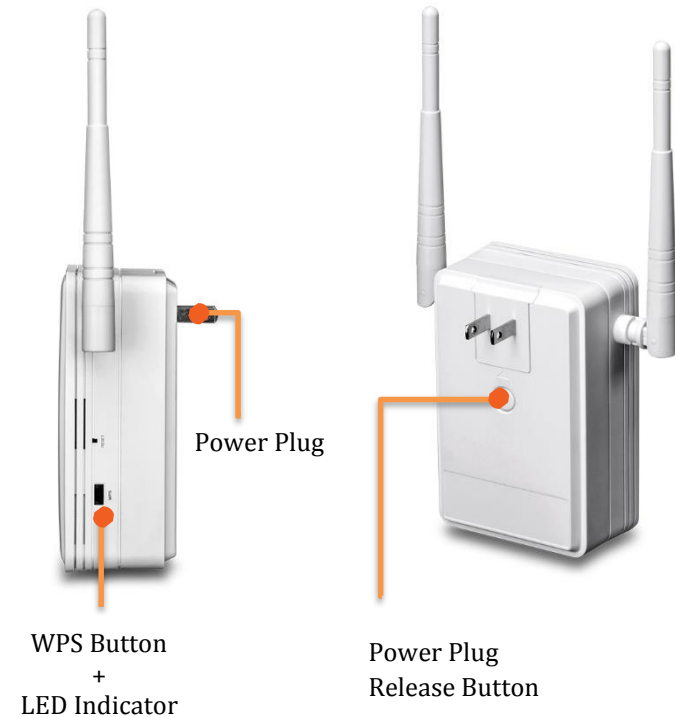
WPS (Wi-Fi Protected Setup) Button + LED Indicator	Push and release the WPS button to activate WPS copying wireless settings from your router. The LED indicator will start blinking when WPS pairing is activated.
Reset Button	Resets your repeater. Push and hold this button for 5 seconds with a pin or paper clip to reset configuration to factory default.
Power Plug Release Button	To exchange different style of power plug. (This package comes with only one power plug.)

Wireless	The **Wireless LED** shows the wireless connection between **Range Extender** and your wireless router. When it lights with solid blue, the **Range Extender** established a good wireless connection with your router. When it blinks, it means there are data running through the wireless connection.
	Red Lights: When wireless connection is weak, the **Wireless LED** is in red. The **Range Extender** can still extend the weak wireless signal in lower speed. It is recommend to relocate your wireless router or **Range Extender** once there's a chance.
	Off: The Wireless LED will be turned off if there's no wireless connection to your wireless router at all.

LED Indicators

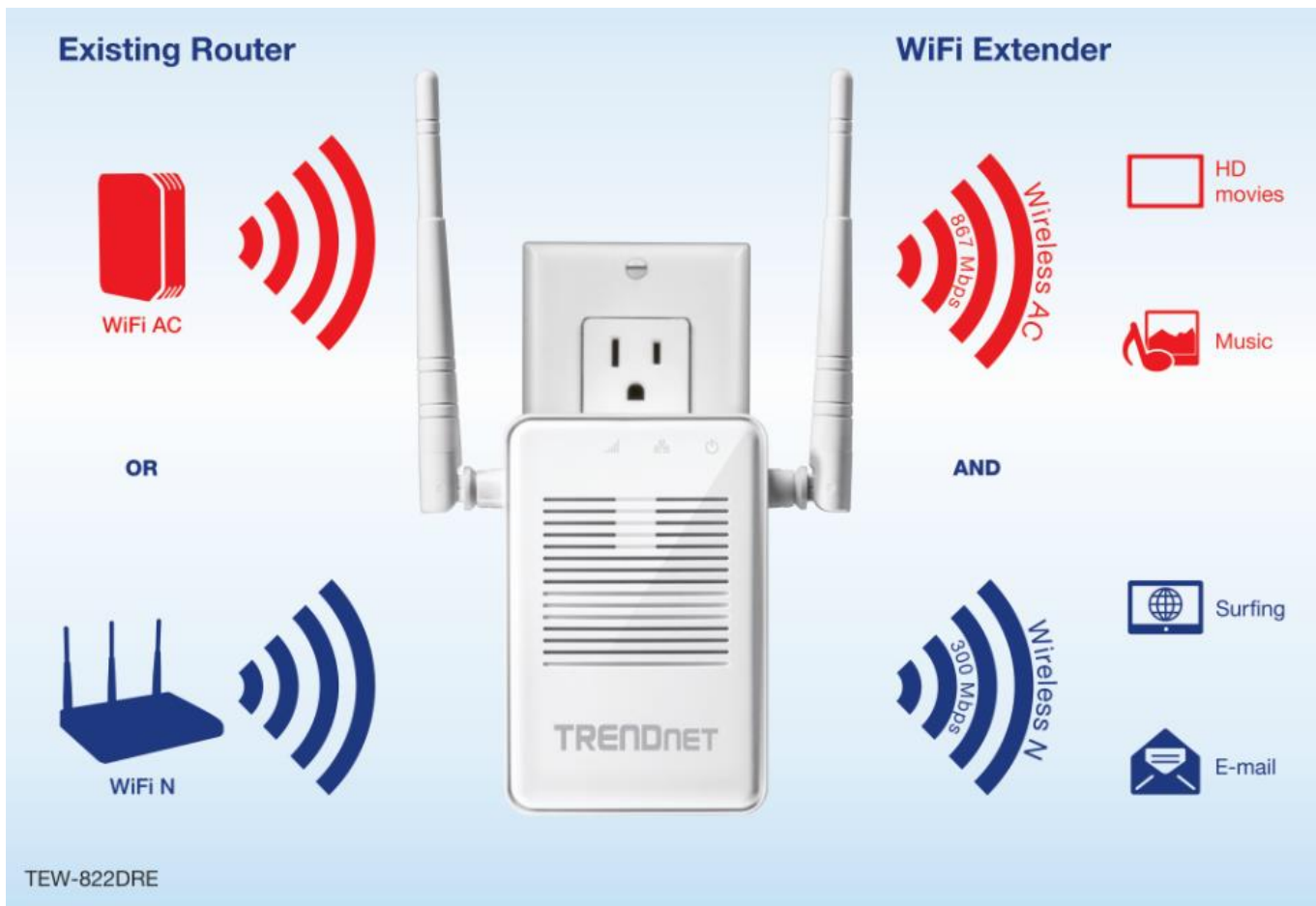| Power	The indicator is solid blue when your range extender is powered on. When this light is off, there is no power to your range extender. The light will also blink when WPS is activated. The light will stop blinking and remain solid blue automatically once WPS process is completed.
Network	Connect a network cable (Ethernet cable) to your computer for manual configuration.

Application Diagram

TEW-822DRE is a dual band 802.11ac range extender which can extend your wireless router's range or coverage. Furthermore, it can extend to both 2.4 GHz and 5 GHz bands to the clients. If your router works only on 2.4 GHz or 5G Hz, you can simply extend it to be a dual band network. simply plug the TEW-822DRE at a location in between your wireless router and your computer or mobile device to eliminate the dead spot of connection.

Setting Up

There are two ways of setup: by pushing Wi-Fi Protected Setup (WPS) button or web browser configuration.

WPS Connection

1. Plug in the TEW-822DRE to a power outlet nearby your wireless router and switch the operation switch to **Extender**.
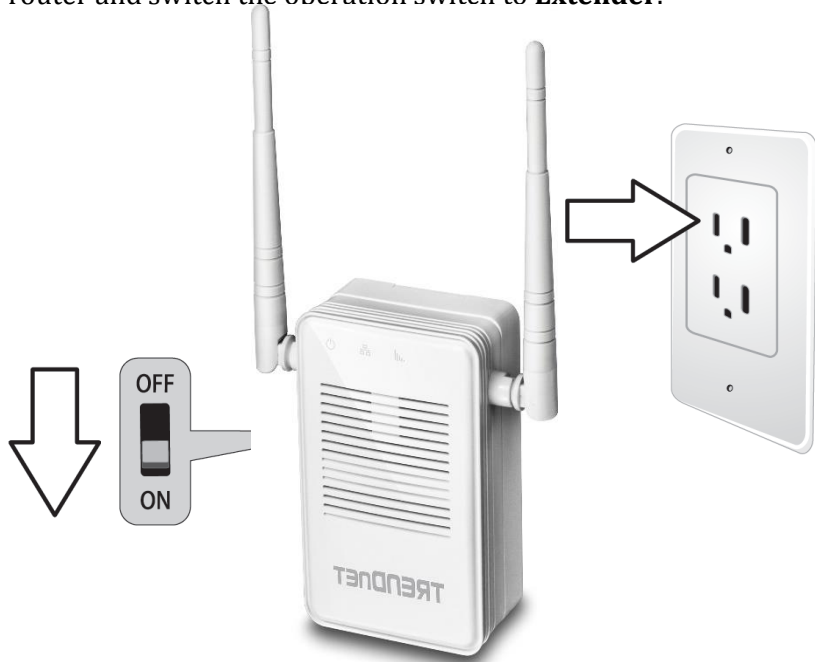
The power LED indicator will start blinking in blue, it means the system is booting up. When the LED blinking in amber, the TEW-822DRE is ready for setup.

2. Press and release the WPS button on the repeater. The LED will blinking in green, which means the TEW-822DRE has begun WPS pairing.
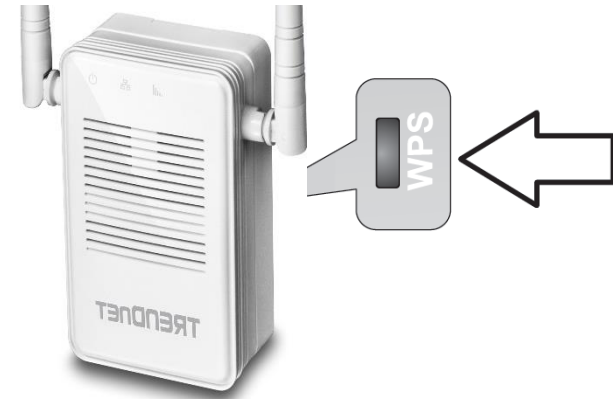
3. Press and hold the WPS button on the router for 5 seconds to start WPS pairing.

4. The LED will change to solid blue once the WPS connection is established.

5. (Optional) Relocate the TEW-822DRE and plug at a location between wireless router and your computer.

Web Browser Configuration

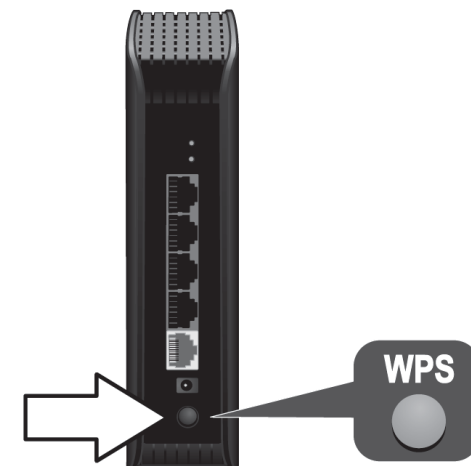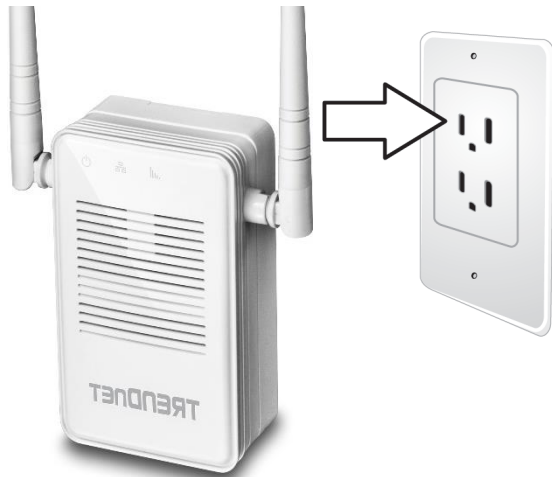1. Plug in the TEW-822DRE to a power outlet nearby your wireless router and computer, then switch the device on.

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The LED indicator will start blinking in red, which means the system is booting up. When the LED blinking in amber, the TEW-822DRE is ready for setup.

2. Open your computer's wireless network settings and search available wireless networks for **TRENDnet737**. No security password is required. The wireless encryption security will be setup in following steps.
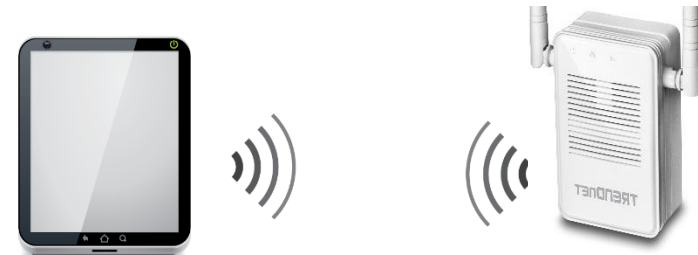
Or,
Connect a network cable (not included in the package) from your computer to the TEW-822DRE's network port.

3. Open the web browser and type **http://tew-822dre** or **http://192.168.10.100** to access the administration page. (See trouble shooting page if you cannot access the administration page.)
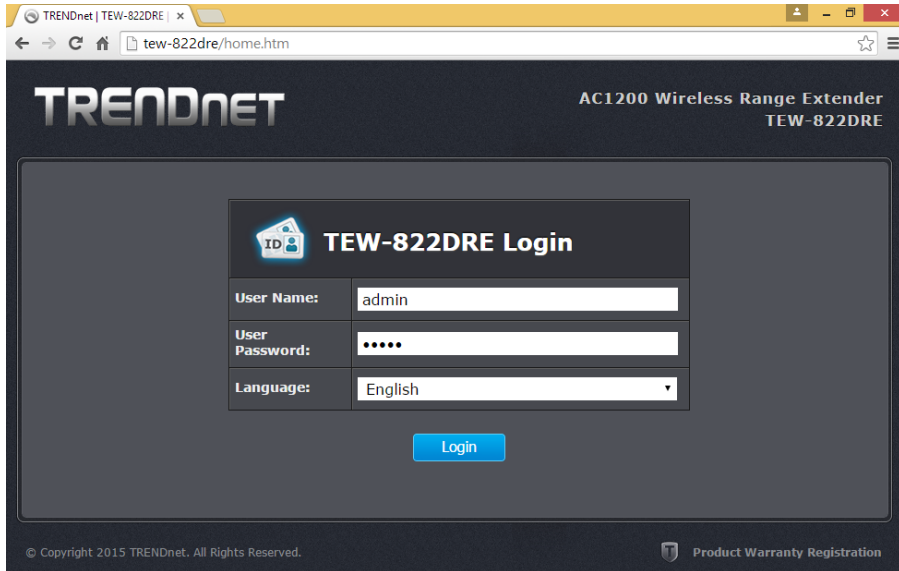
Enter administrator login information. (The default user name is **admin** and the password is **admin**.)
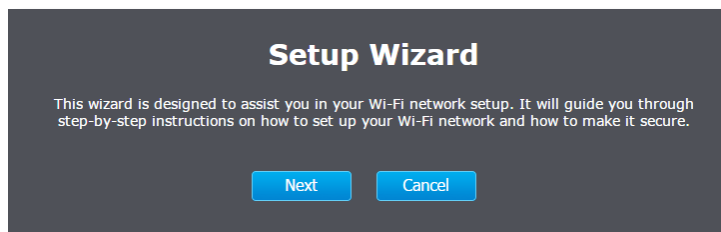
4. Change your administrator password from the factory default setting. Click **Apply** to continue.
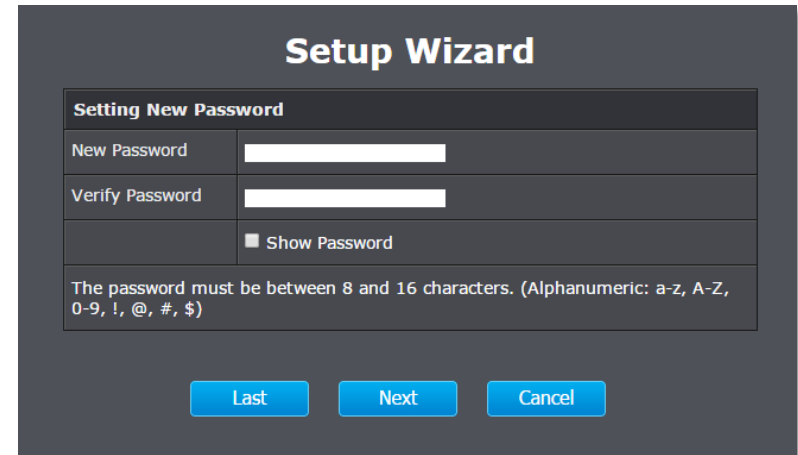
5. Choose manual setting to search and select your wireless router manually.

6. Select the wireless router or access point you want to connect with and then click **Connect**.
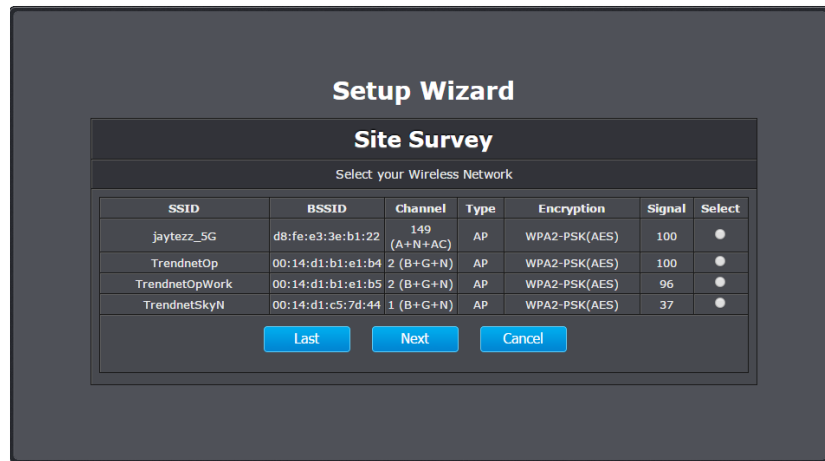
7. Enter the WiFi key and then click **Next**.

8. click **Next**.
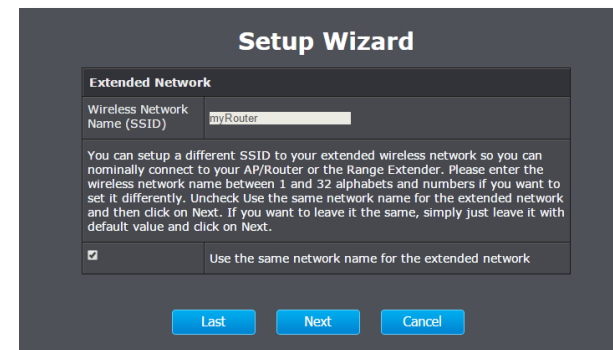
9. TEW-822DRE will reboot to apply the change. The LED will cycle through flashing red, flashing amber, and then turn to solid green once the connection is established.

10. (Optional) Relocate the TEW-822DRE and plug at a location between wireless router and your computer.

Access your Range Extender through the Web Browser
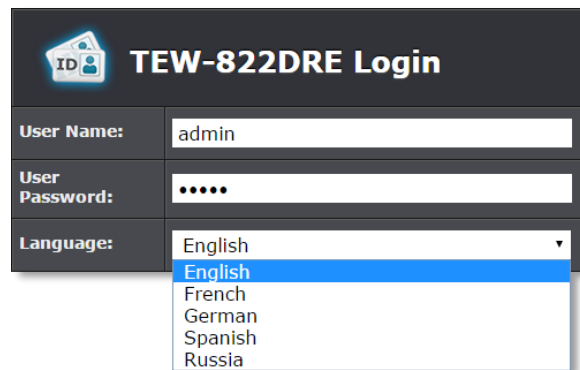
System Management and Default Settings

The TEW-822DRE has following settings:

User name:	admin
Password:	admin

Multi-Language

Select your preferred language in the TEW-822DRE login page.

Major Settings

Main - Wizard
Run the setup wizard again

Main - Network Settings

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Main - System

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Main - Time Settings

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Wireless

Site Survey
Search wireless sites.
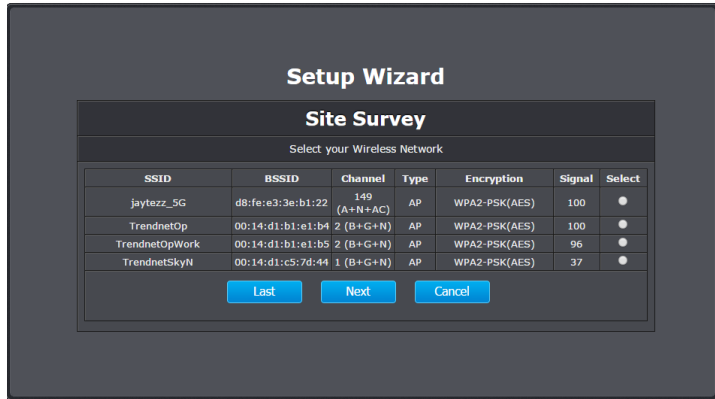
Status

System Information

System reference information.

System Information

System

Firmware Version	1.00 , Tue, 02, Jun, 2015
Time	6/2/2015 10:4:2

LAN

Device Mode	AP Repeater
MAC Address	d8:eb:97:95:90:ce
Connection	Dynamic IP
IP Address	192.168.10.100
Subnet Mask	255.255.255.0
Gateway Address	0.0.0.0

2.4GHz Wireless

MAC Address	D8:EB:97:95:90:CF
SSID	TRENDnet822_2.4GHz_90CE
Security Mode	WPA2 Mixed
Channel Width	Auto 20/40MHz
Channel	2

5GHz Wireless

MAC Address	D8:EB:97:95:90:CE
SSID	TRENDnet822_5GHz_90CE
Security Mode	WPA2 Mixed
Channel Width	Auto 20/40/80MHz
Channel	40

Local Logs

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View Local Logs

Log Options

Log Options
- ☑ System Activity
- ☐ Debug Information
- ☐ Attacks
- ☐ Dropped Packets
- ☐ Notice

Apply Log Options Now

Download

Download log history to your computer   Download

Log Details :

First Page   Last Page   Previous Page   Next Page   Clear Log   Refresh

page 1 / 8

Time	Message
Jun 2 09:33:55	BusyBox v1.13.4
Jun 2 09:33:55	Do Warm Reset for U3
Jun 2 09:33:55	try Port Reset for U2
Jun 2 09:33:55	dwc_usb3 dwc_usb3: xHCI Host Controller
Jun 2 09:33:55	dwc_usb3 dwc_usb3: new USB bus registered, assigned bus number 1
Jun 2 09:33:55	dwc_usb3 dwc_usb3: irq 42, io mem 0x18040000
Jun 2 09:33:55	hub 1-0:1.0: USB hub found
Jun 2 09:33:55	hub 1-0:1.0: 1 port detected
Jun 2 09:33:55	dwc_usb3 dwc_usb3: xHCI Host Controller
Jun 2 09:33:55	dwc_usb3 dwc_usb3: new USB bus registered, assigned bus number 2
Jun 2 09:33:55	hub 2-0:1.0: USB hub found
Jun 2 09:33:55	hub 2-0:1.0: 1 port detected
Jun 2 09:33:55	usbcore: registered new interface driver usb-storage
Jun 2 09:33:55	pktgen: Packet Generator for packet performance testing. Version: 2.74
Jun 2 09:33:55	u32 classifier
Jun 2 09:33:55	nf_conntrack version 0.5.0 (785 buckets, 3140 max)
Jun 2 09:33:55	ip_tables: (C) 2000-2006 Netfilter Core Team
Jun 2 09:33:55	TCP: cubic registered
Jun 2 09:33:55	NET: Registered protocol family 10
Jun 2 09:33:55	sit: IPv6 over IPv4 tunneling driver
Jun 2 09:33:55	NET: Registered protocol family 17
Jun 2 09:33:55	l2tp_core: L2TP core driver, V2.0
Jun 2 09:33:55	Realtek FastPath:v1.03
Jun 2 09:33:55	VFS: Mounted root (squashfs filesystem) readonly on device 31:1.

Statistics

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LAN			
Sent	8998	Received	8898
TX Packets Dropped	0	RX Packets Dropped	0
Collisions	0	Errors	0

Traffic Statistics

2.4GHz Wireless			
Sent	728	Received	41849
TX Packets Dropped	0	RX Packets Dropped	0
Collisions	0	Errors	0

5GHz Wireless			
Sent	337	Received	20142
TX Packets Dropped	0	RX Packets Dropped	0
Collisions	0	Errors	0

Menu items: Main, Wireless, Status (System Information, Local Logs, Statistics, Wireless Client List), Tools

Wireless Client List

List all the wireless clients.

Wireless Client List

2.4GHz Wireless Clients List	
Connected Time	MAC Address
---	NONE

5GHz Wireless Clients List	
Connected Time	MAC Address
---	NONE

Menu items: Main, Wireless, Status (System Information, Local Logs, Statistics, Wireless Client List), Tools

Tools

Upload Firmware

Click **Upload Firmware** on the menu to list associated wireless clients. TRENDnet may periodically release firmware upgrades that might add features or fix problems associated with your TRENDnet model and version. To find out if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link.

`http://www.trendnet.com/downloads/`

1. If a firmware upgrade is available, download the firmware to your Computer.
2. Unzip the file to a folder on your computer.
3. Log into the repeater (default http://tew-822dre)
4. Click on **Administrator** and then **Upload Firmware.**
5. Click **Browse ...** and navigate to the folder on your computer in which the unzipped firmware file (.bin) is.
6. Located and select it the firmware file.
7. Click **Upload**.

Backup Settings
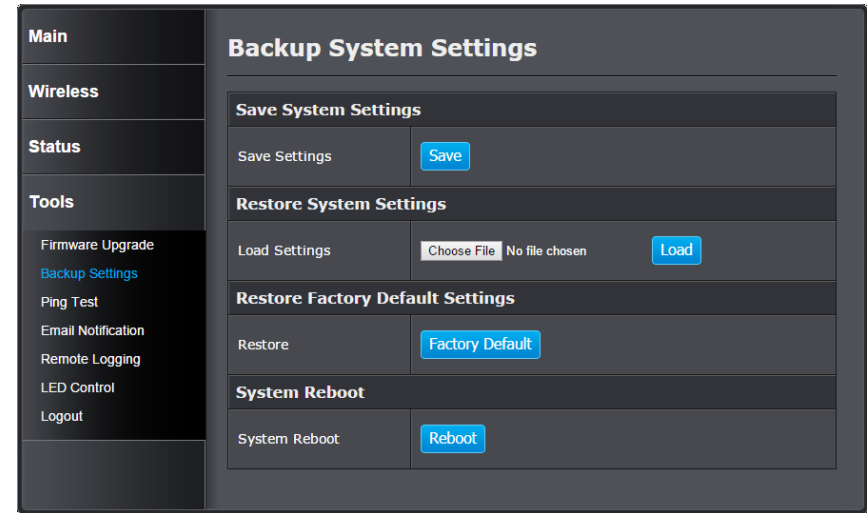
Save Configuration Settings	Click **Save** to export settings to your computer.
Restore Configuration Settings	To restore settings previously saved on your computer, click **Browse...** to select a configuration file and then click **Load** to import the previous settings.
Restore Factory Default Settings	Click **Restore** to restore settings to factory defaults.
System Reboot	Click **Restart** to reboot your TEW-822DRE.

Ping Test

Ping test tool.

Email Notification

Email notification setups.

Remote Logging
Remote Syslog.

Syslog Service Settings

Main
Wireless
Status
Tools
Firmware Upgrade
Backup Settings
Ping Test
Email Notification
Remote Logging
LED Control
Logout

Save Settings   Don't Save Settings

Syslog Server

Enable Logging To Syslog Server:	☐
Syslog Server IP Address:	

Save Settings   Don't Save Settings

LED Control
Control LED indicators.

LED Control   Help

Main
Wireless
Status
Tools
Firmware Upgrade
Backup Settings
Ping Test
Email Notification
Remote Logging
LED Control
Logout

Save Settings   Don't Save Settings

LED Disable

LED Disable:	☐

Save Settings   Don't Save Settings

Logout

Logout from the system.
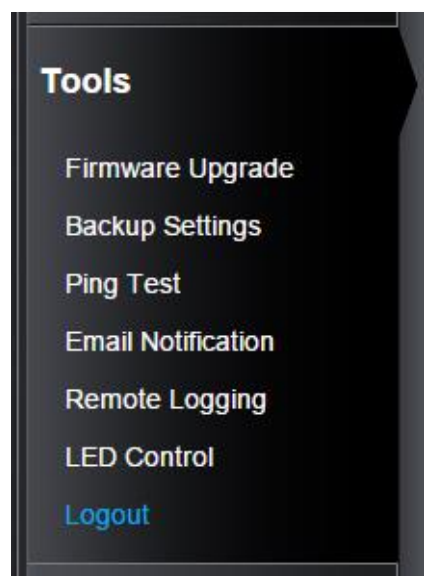
Technical Specifications

Wireless Modulation:	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM with OFDM
Antenna :	External antenna
Frequency:	• FCC: 2.412 - 2.462 GHz, 5.180 - 5.240 GHz, 5.745 - 5.825 GHz • ETSI: 2.412 - 2.472 GHz, 5.180 - 5.580 GHz, 5.660 - 5.700 GHz
Wireless Channels:	• FCC: 1 -11, 36, 40, 44, 48, 149, 153, 157, 161, 165 • ETSI: 1 – 13, 36, 40, 44, 48, (52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140) *Due to regulatory requirements, the wireless channels specified cannot be statically assigned, but will be available within the available wireless channels when set to auto.*
Data Rate:	• 802.11ac: up to 867 Mbps (Auto Fallback) • 802.11a: up to 54 Mbps • 802.11n: up to 300 Mbps (Auto Fallback) • 802.11g: up to 54 Mbps • 802.11b: up to 11 Mbps
Output Power:	• 802.11a: FCC: 22 dBm (typical), CE: 20 dBm (typical) @ 54 Mbps • 802.11b: FCC: 20 dBm (typical), CE: 20 dBm (typical) @ 11 Mbps • 802.11g: FCC: 27 dBm (typical), CE: 20 dBm (typical) @ 54 Mbps • 802.11n: FCC: 27 dBm (typical), CE: 20 dBm (typical) @ 300 Mbps • 802.11ac: FCC: 26 dBm (typical), CE: 20 dBm (typical) @ 867 Mbps
Receiving Sensitivity:	• 802.11a: -65 dBm (typical) @ 54 Mbps • 802.11b: -83 dBm (typical) @ 11 Mbps • 802.11g: -65 dBm (typical) @ 54 Mbps • 802.11n: -61 dBm (typical) @ 300 Mbps • 802.11ac: -51 dBm (typical) @ 867 Mbps
Encryption:	64/128-bit WEP, WPA / WPA2-PSK

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.

Troubleshooting

Situation: I typed http://tew-822dre but I am not able to access the unit. What should I do?

Solution:

The host name resolution is good for most systems, including Windows, OS X, and iOS. Please enter the IP address (default: 192.168.10.100) if you experience difficulty in accessing the range extender.

Proceed following steps for correct name resolution.

1. Turn the TEW-822DRE's operating mode switch to **Extender** or **AP**.
2. Reset the device to factory default settings by pushing the reset button for 5 seconds.
3. Make sure you have a good wireless connection to the default SSID: **TRENDnet822_5GHz_xxxx**, **TRENDnet822_2.4GHz_xxxx,** or connect to the TEW-822DRE using a network cable. The default wireless password is printed on the device label on same side of the power plug.
4. Make sure your laptop/PC is not joined to any network domain.
5. Open a browser and type **http://tew-822dre** (You must enter the leading **http://** to resolve the text as a host name)

Situation: How do I reset the device to factory default?

Solution:

1. Use a pin such as a staple to press and hold the reset button at the bottom of the TEW-822DRE for 5 seconds.
2. You can also reset from the management page.

Situation: I entered **http://192.168.10.100** but I am not able to access the unit. What should I do?

Solution:

1. Turn the TEW-822DRE's operating mode switch to **Extender** or **AP**.
2. Reset the device to factory default settings by pushing the reset button for 5 seconds.
3. Make sure you have a good wireless connection to the default SSID: **TRENDnet822_5GHz_xxxx**, **TRENDnet822_2.4GHz_xxxx,** or connect to the TEW-822DRE using a network cable. The default wireless password is printed on the device label on same side of the power plug.
4. Make sure your computer has no other network connections. For example, if you access TEW-822DRE through wireless, disconnect your Ethernet cable.
5. Open a browser and enter **http://192.168.10.100**

Situation: How do I make sure my unit is connected to a router or an AP?

Solution:

The LED will turn solid blue when the TEW-822DRE is successfully connected to a router or an AP.

Situation: How can I access the TEW-822DRE once it is setup?

Solution:

You can use its host name (http://tew-822dre) or IP address to access the TEW-822DRE. After repeater setup, the TEW-822DRE will get an IP address from your router (DHCP). Check the DHCP client list on your router if you want to access the TEW-822DRE with its IP address.

Regulations

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. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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

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.

Operation of this device is restricted to indoor use only.

Industry Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution:
the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

Avertissement:
les dispositifs fonctionnant dans la bande de 5150 à 5250MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Radiation Exposure Statement:
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps

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-822DRE – 3 Years 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.

WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACE. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF TRENDNET'S PRODUCTS.

TRENDNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

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

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