

WiFi Range Extender (QT333)

USER GUIDE

P/N QT903, Revision Original: 12.17.20



CUES equipment is designed to be easy to use during day to day operation. However, it is powered electrically and thus must be operated with care and safety. PLEASE READ THE INFORMATION ON SAFETY AND MAINTENANCE EVEN IF THE SYSTEM IS SET UP BY SOMEONE ELSE.

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We would be pleased to hear from you. If you see any errors or desirable extensions or improvements, please write us at the following address, C/O Operator's Manuals: CUES Corporate Office, 3600 Rio Vista Avenue, Orlando, Florida, 32805

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**CUES toll free hot line for Customer Service
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(800-854-2837)**

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Styles and specifications are subject to change without notice. First version published in 2020.
Printed in the United States of America.

WiFi Range Extender

User Guide

This manual includes instructions for the CUES WiFi Range Extender.

Disclaimer:

This product contains a TP-Link product modified for use with CUES equipment. TP-Link is a registered Trademark of TP-Link Corporation Limited.

Basic Functions

- ◆ Power ON/OFF - Press the large button at the top of the Range Extender to turn the unit on/off. The switch will illuminate when powered on. The switch must be in off position for charging.
- ◆ Battery Gauge - Press the button on the bottom end (threaded end) of the Range Extender to check the battery state in the battery % window on the side of the unit.
- ◆ Charge Port - Only use the CUES supplied charger for the Range Extender. The charger will illuminate green when battery is charged and red when charging.
- ◆ Status Light - The status light illuminates the area beneath the top cap of the Range Extender. A solid light means the Range Extender is connected to a specified QZ3/SPIDER Network; a flashing light means the Range Extender is not connected.



2 Operating Instructions

PAIRING THE RANGE EXTENDER TO A QZ3/SPiDER

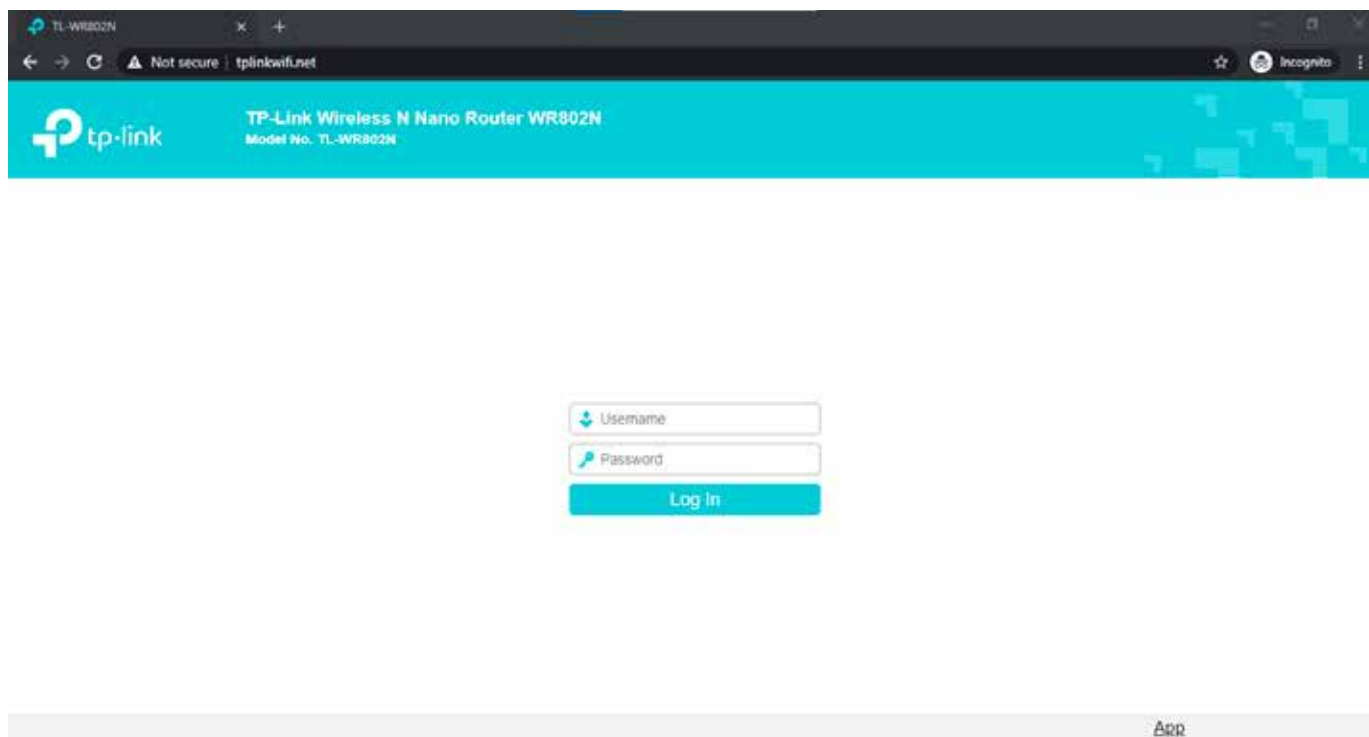
Follow the instructions below to pair the Range Extender with a QZ3/SPiDER. The Range Extender can be reconfigured to use with another QZ3/SPiDER by repeating this procedure. Note that the Range Extender can only be configured to one device at a time. Once paired to a QZ3/SPiDER, the Range Extender will automatically reconnect whenever the QZ3/SPiDER is in range and powered on.

1. Press the button on top side of Range Extender to power on.
2. Using a wireless enabled tablet/PC/mobile device, connect to the Range Extender WiFi network using the SSID (network name) and pin labeled on the side of the unit.
3. Once connected to the Range Extender's network, open a web browser page on your device and navigate to: tplinkwifi.net

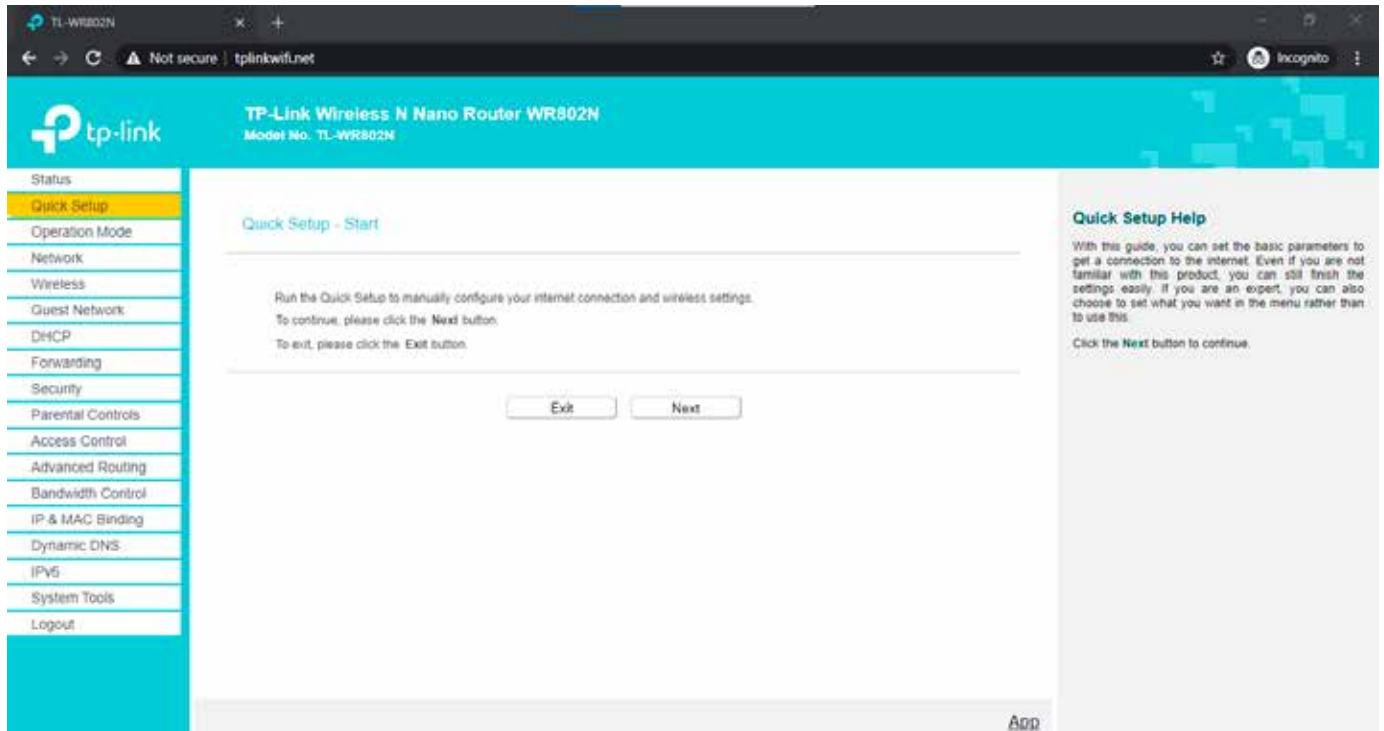
If you encounter any errors in reaching this site, you may use either of the following:

- <http://192.168.0.1>
- <http://192.168.1.1>

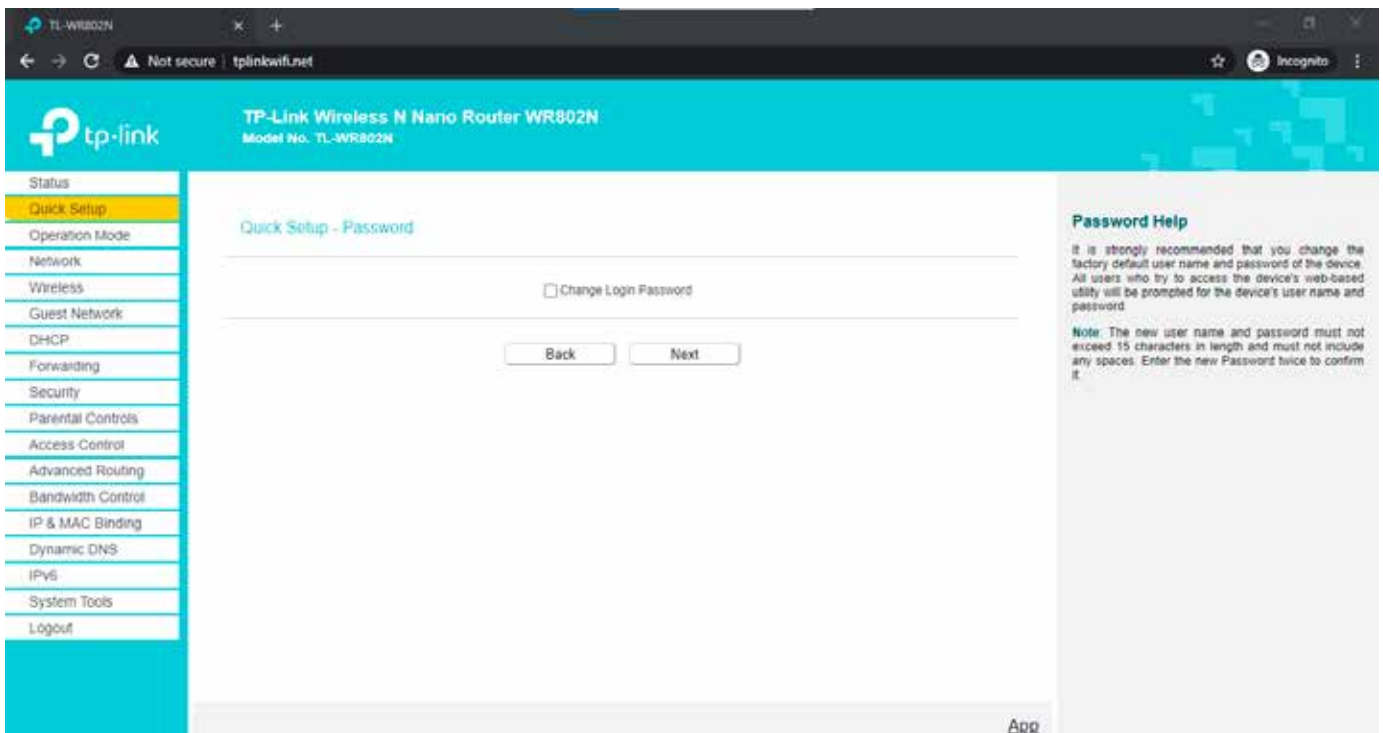
4. Use default username and password: admin (for both—case sensitive) to login to the Range Extender.



5. Press **NEXT** on the Quick Setup.



6. At the next screen, you may change your login username and password; however **we do not recommend this as CUES will not be able to recover this information for you without a factory reset of the Range Extender**. Press **NEXT** to proceed.



2 Operating Instructions

PAIRING THE RANGE EXTENDER TO A QZ3/SPIDER - CONTINUED

7. Select **Range Extender** at the following screen and press **Next**.

TP-Link Wireless N Nano Router WR802N
Model No. TL-WR802N

Quick Setup - Operation Mode

Choose Operation Mode:

- ☐ Wireless Router
- ☐ Hotspot Router
- ☐ Access Point
- ☒ Range Extender
- ☐ Client

Extend the range of an existing Wi-Fi

Back Next

Operation Mode Help

Wireless Router(Default): In this mode, the device enables multiple users to share the Internet connection via ADSL/Cable Modem. The LAN devices share the same IP from ISP through Wireless port. While connecting to Internet, the LAN/WAN (Ethernet) port works as a WAN port at Wireless Router mode.

Hotspot Router: In this mode, the device enables multiple users to share Internet connection from WISP. The LAN port devices share the same IP from WISP through Wireless port. While connecting to WISP, the Wireless port works as a WAN port. The Ethernet port acts as a LAN port.

Access Point: In this mode, this device can be connected to a wired network and transform the wired access into wireless that multiple devices can share together, especially for a home, office or hotel where only wired network is available.

Range Extender: In this mode, this device can copy and reinforce the existing wireless signal to extend the coverage of the signal, especially for a large space to eliminate signal-blind corners.

Client: In this mode, this device can be connected to another device via Ethernet port and act as an adapter to grant your wired devices access to a wireless network, especially for a Smart TV, Media Player, or game console only with an Ethernet port.

8. **Power on your QZ3 or SPiDER** within range of the repeater and wait for it to broadcast its network (approximately 30 sec). Press **Refresh** on the screen as shown to reveal the QZ3/SPiDER network in the list and press the **connect** link to the right of the network name.

TP-Link Wireless N Nano Router WR802N
Model No. TL-WR802N

AP List

The scanned APs are as follows:

AP numbers: 18 Refresh

ID	BSSID	SSID	Signal strength	Channel	Encryption	Connect
1	9C:EF:D5:FD:95:9D	qz3-ENG_TEST	96	1	WPA2-PSK/AES	Connect
2	48:8F:5A:40:D3:58	CUES-SPIDER-20111247	91	5	WPA2-PSK/AES	Connect
3	48:8F:5A:40:D5:9F	CUES-SPIDER-20111248	89	5	WPA2-PSK/AES	Connect
4	28:80:A2:61:82:D9	Verizon-MF8800L-8208	84	1	WPA2-PSK/AES	Connect
5	28:80:A2:61:E9:CE	Verizon-MF8800L-E9CA	80	8	WPA2-PSK/AES	Connect
6	10:B3:D5:F8:A3:81	SPX-Guest1	76	11	None	Connect
7	10:B3:D5:F8:A3:80	SPXCorp	75	11	WPA2/AES	Connect
8	00:0C:41:48:3B:CC	EA Test	61	6	None	Connect
9	10:62:E5:77:18:22	HP-Print-22-Officejet Pro 8230	61	6	WPA2-PSK/AES	Connect
10	10:B3:D5:B0:91:61	SPX-Guest1	53	1	None	Connect
11	10:B3:D5:B0:91:60	SPXCorp	53	1	WPA2/AES	Connect
12	5C:5A:C7:DD:40:C1	SPX-Guest1	52	11	None	Connect
13	5C:5A:C7:DD:40:C0	SPXCorp	52	11	WPA2/AES	Connect

Wlan Site Survey Help

Note: The information of APs which you could connect to is shown on this page. Set as follows:

- First, find the line where the network you want to connect lay on.
- Then, check the "connect" at the end of that line.
- Now, the target network's SSID is filled in the correct place on the Wlan configure page automatically.

Note: Click the Refresh button to update the AP list.

Click the Back button to return Operation Mode selection page.

9. At the next screen, enter the password for the QZ3/SPiDER in the password field and select **customize** for the wireless name. The default “customized” name is recommended. Press **NEXT** to proceed.

TP-Link Wireless N Nano Router WR802N
Model No. TL-WR802N

Quick Setup - Wireless

SSID to be bridged:

MAC Address to be bridged: * e.g. 00:1D:0F:11:22:33

Key Type:

Encryption:

Password:

Wireless Name of Range Extender: ☐ Copy from Root AP ☒ Customize

Wireless Help

Range Extender - In Range Extender mode, the wireless repeater relays signal between its stations and the root AP for greater wireless range.

- Wireless Name of Root AP** - Enter the name of a remote AP (also called the SSID) that you want to access. Click the Back button back to the AP list page, you can choose another one of searching results to fill in this field.
- MAC Address of Root AP** - Enter the MAC address of AP that you want to access. When you use the survey function in previous page to find the Wireless Name of Root AP, this field will be filled in automatically.
- Wireless Name of Range Extender** - This field determines the Local AP SSID. You can set the same SSID with the Root AP's, or customize as you want.

Hotspot Router - In this mode, the device enables multiple users to share internet connection from WISP.

- SSID to be bridged** - Enter the name of a remote AP (also called the SSID) that you want to access. Click the Back button back to the AP list page, you can choose another one of searching results to fill in this field.
- MAC Address of AP** - Enter the MAC address of AP that you want to access. When you use the survey function

10. Press **NEXT** to proceed with the default settings on the following page. It is not recommended to alter these settings.

TP-Link Wireless N Nano Router WR802N
Model No. TL-WR802N

Quick Setup - Network Setting

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP).
(In this situation the device will help you configure the IP parameters automatically as you need.)

IP Address:

Subnet Mask:

Note: We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server: ☒ Enable ☐ Disable

Network Settings Help

You can configure the IP parameters of LAN on this page.

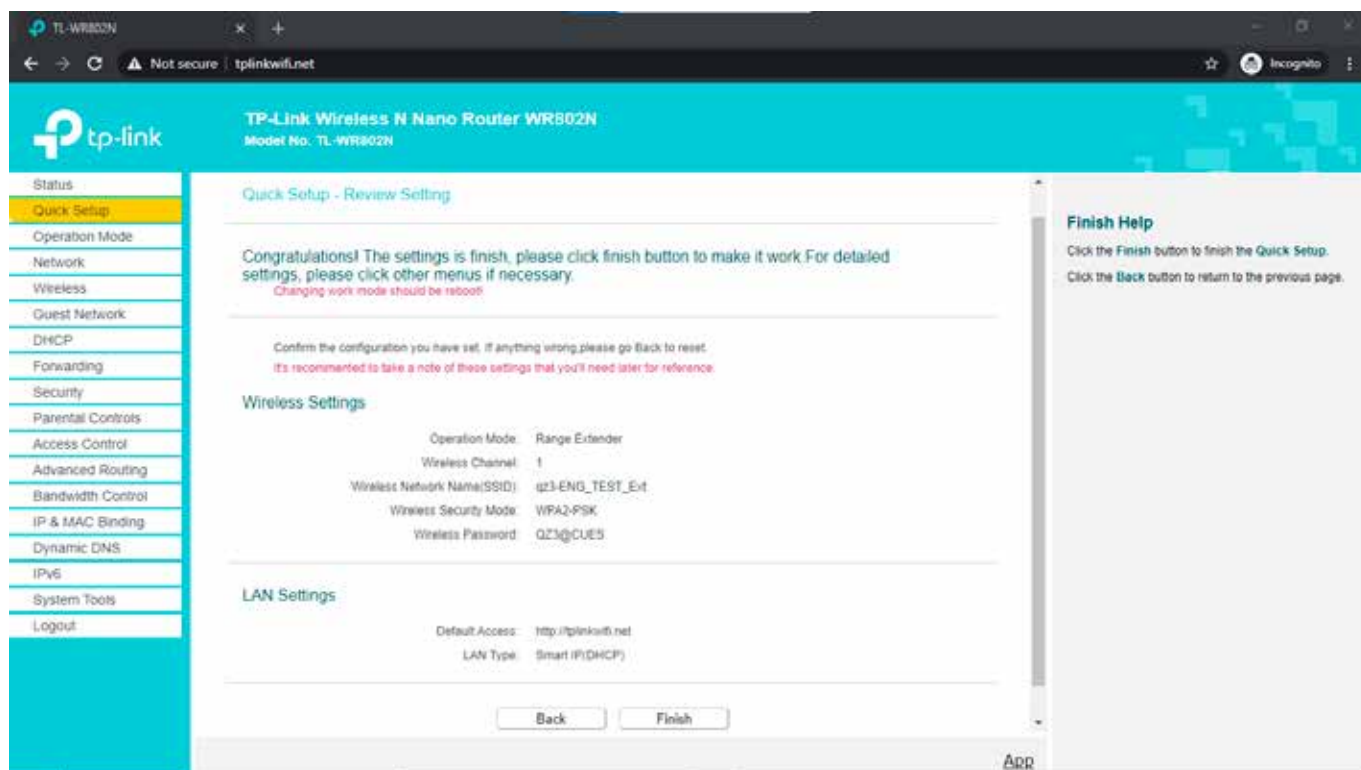
- Type** - Choosing Smart IP to get IP address from remoter DHCP server, or choosing Static IP to config IP address manually.
- IP Address** - Enter the IP address of your system in dotted-decimal notation (factory default).
- Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- DHCP Server** - Enable or Disable the server. If you choose Smart IP type, the selection will be disabled. If you disable the Server, you must have another DHCP server within your network or else you must configure the IP address of the computer manually.

Note: If you change the IP address, you must use the new IP address to login the system.

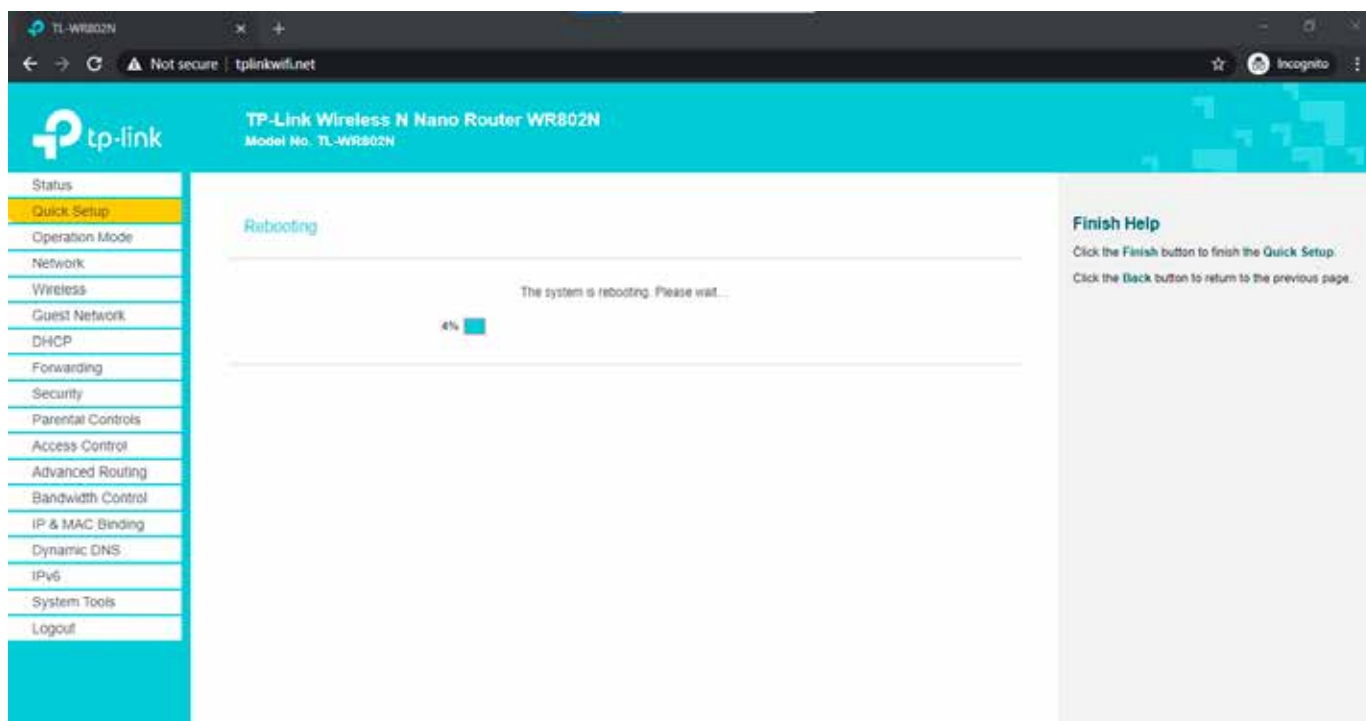
2 Operating Instructions

PAIRING THE RANGE EXTENDER TO A QZ3/SPIDER - CONTINUED

11. The next page will confirm completion of the Range Extender setup. Press the **FINISH** button at the bottom of the page to complete.



12. The Range Extender will then automatically reboot. Do not power off during this process.



13. Once the Range Extender has rebooted, you can connect to its new network name from step 9 with the same password as the QZ3/SPiDER. At this stage, you can navigate to the QZ3/SPiDER browser page and operate the device through the Range Extender.

RESETTING THE RANGE EXTENDER (NOTE: ONLY NECESSARY IF USER LOGIN/PASSWORD IS CHANGED OR LOST)

To reset the Range Extender to Factory Default settings, use a paper clip to press and hold the reset button located in the small hole on the bottom of the Range Extender for 10 sec. The blue status light will turn off. Release the reset button and the light will begin to flash after 10-20 sec. The Range Extender is now reset to factory settings and can be paired to a QZ3/SPiDER following the pairing instructions using the default SSID & PIN labeled on the unit.



This device is designed to be water resistant. However, the Range Extender is not meant to be submerged or hosed off. Clean with a damp cloth and mild detergent when necessary.

LITHIUM ION BATTERY SAFETY AND CHARGING INFORMATION

Battery/Charging Precautions and Recommendations

- ◆ Do not submerge the Range Extender.
- ◆ Do not allow the Range Extender charge port to short-circuit, even for a moment.
- ◆ Always protect Range Extender from shock, puncture, and impact, i.e., do not drop or transport in a tool box, trunk, back of van, etc. where they can “bang around”.
- ◆ Do not use or attempt to charge a Range Extender showing any signs of damage.
- ◆ Never charge the Range Extender at temperatures below or above 0°C/40°C respectively.
- ◆ Do not operate the Range Extender at temperatures below or above -30°C/55°C respectively.
- ◆ Always charge the Range Extender on a non-flammable surface and away from all flammable material.
- ◆ Do not attempt to tamper with or disassemble the Range Extender.
- ◆ The Range Extender may become warm during use or charge.
- ◆ Remaining charge on battery is indicated by pressing the button on bottom.
- ◆ The Range Extender should be recharged as soon as possible after discharge unless it is not in the appropriate temperature range. Ideally, charging should occur at room temperature after allowing Range Extender to warm up or cool down to room temperature.
- ◆ Partial charges or discharges are acceptable without causing “memory effect”, although constant operation under those conditions should be avoided.

CHARGING PROCEDURE (IMPORTANT! UNIT MUST BE POWERED OFF DURING CHARGING)

- ◆ Connect the charger to the battery pack using the connector on the bottom of the device.
- ◆ When the charger LED is red, the battery is charging.
- ◆ When the charger LED switches to green, the battery is fully charged.

CUES STANDARD 12 MONTH WARRANTY

CUES ("CUES") warrants that all parts, components, and equipment manufactured by CUES shall be free from defects in material and workmanship under normal use and service for which it was intended for a period of twelve (12) months from the date of shipment of materials by CUES to the purchaser. CUES' obligation under this warranty is limited, at CUES' option, to replacing or repairing, free of charge, any defective materials returned, freight prepaid, to the CUES designated service facility. For all warranty claims, the materials must be returned in accordance with CUES Material Return Policy.

Major items of equipment, such as vehicles, generators, etc., furnished, but not manufactured by CUES, will be covered only under the warranty of the third party manufacturer of such equipment. Expendable parts, such as light bulbs, fuses, connectors, etc., are excluded from this warranty.

Purchaser must notify CUES of a breach of warranty not later than the last day of the warranty period; otherwise, such claims shall be deemed waived.

CUES does not warrant the materials to meet the requirements of the safety codes of any federal, state, municipal or other governmental or administrative jurisdiction. Purchaser assumes all risk and liability whatsoever resulting from the use of its products, whether used singly or in combination with other products, machines or equipment.

This Warranty shall not apply to any materials, or parts thereof, which have; (a) been repaired or altered by anyone other than CUES without CUES' written consent; (b) been subject to misuse, abuse, negligence, accident, or damage; (c) not been installed or operated in accordance with CUES' printed instructions, or; (d) been operated under conditions exceeding or more severe than those set forth in the specifications of design tolerance of the equipment.

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CUES neither assumes nor authorizes any person (including employees, agents, or representatives of CUES) to assume for it any other liability, guarantee, or warranty in connection with the sale or use of the materials, and no oral agreements, warranties, or understandings exist collateral to or affecting this warranty.

This warranty shall not be extended, altered, modified, or waived except by a written instrument signed by CUES.

CUES MATERIAL RETURN POLICY

To ensure the orderly return of CUES products from our customers and to assure proper credit and warranty replacements handled in a timely manner, CUES has implemented a MATERIAL RETURN AUTHORIZATION (MRA) SYSTEM. Please read and follow the instructions below to ensure your MRA is handled properly and efficiently:

1. Once it is determined that a CUES product needs to be returned, call the CUES Parts Department in Orlando at 1-800-327-7791.
2. CUES will provide an MRA number by phone and ask a few questions.
3. CUES will then mail or fax the MATERIAL RETURN AUTHORIZATION (MRA) FORM with the MRA number, or include it with the replacement parts, if applicable.
4. Follow all instructions on the MRA Form. Make 2 copies - one for your records and the other will be used as a packing list.
5. Place an MRA sheet in with the parts that are shipped back to CUES along with a copy of the original packing slip or invoice, if possible. Send only the parts originally agreed upon with your Parts Representative. Any deviations/changes will require an additional MRA.
6. Make sure to include a copy of the MRA form for a packing slip.
7. Write the MRA number on the outside of the box.
8. Please take care in packing the parts that are to be shipped back to CUES. Parts must be individually protected from each other and appropriate packing material must be used to prevent damage during shipping.
9. Freight on the material returned is to be prepaid by the customer. Depending on the warranty determination, CUES, at its' option, may credit freight charges both ways.
10. The parts must be returned to CUES within 5 days of receipt of the MRA for credit to be granted.

Under normal circumstances, a warranty determination can be made within 30 days, and if under warranty, the part will be replaced at no charge. A credit will be issued if you have already received a replacement part. No credits will be issued until CUES receives the defective part.

*****NOTE*****

CUES will not warrant look-alike parts sold by competitors and reserves the right to charge a restocking fee. CUES shall not be liable for any loss or damage resulting, directly or indirectly, from the use of the materials, or for special, indirect, or consequential damages, economic losses, loss of profits, loss of business, or loss of business opportunity.

Without limiting the generality of the foregoing, this exclusion from liability embraces purchaser's expenses for downtime or for making up downtime, damages to property, and injury to or death of any persons.

CUES neither assumes nor authorizes any person (including employees, agents, or representatives of CUES) to assume for it any other liability, guarantee, or warranty in connection with the sale or use of the materials, and no oral agreements, warranties, or understandings exist collateral to or affecting this warranty. This warranty shall not be extended, altered, modified, or waived except by a written instrument signed by an authorized CUES representative.

CUES MATERIAL RETURN AUTHORIZATION

Cust #:	Name:	Contact:	Date: 4/21/2004
Original SO #: N/A	SO Orig:	Dated:	New SO #:
Return For:	Reason:	Territory	S.O. To Be Credited:
Prod. Ref. Cd: 51200		Orig:	
Explanation:			
Items Returned			
1			
2			
3			
4			
5			
6			

To ensure your MRA is handled properly and efficiently, please follow the instructions below.

1. Ship parts back within five (5) business days of receiving your MRA number. Parts ordered in error are subject to a restocking fee.
2. Send only the parts originally agreed upon with your customer service representative. Any deviations will require an additional MRA.
3. Make a copy of this sheet and keep the original for your records. Use the copy as a packing slip.
4. Write the MRA number on the outside of the box.
5. Parts must be individually protected from each other (original packaging would be best) and appropriate packing material must be used to prevent against damage during shipping.

Note: If parts are not well protected and arrive at our facility damaged in any manner, we will automatically reject them and return them to you without credit.

PARTS WILL BE RETURNED TO CUSTOMER AT CUSTOMER EXPENSE WITHOUT AN MRA NUMBER DOCUMENTED ON BOX. CUES IS NOT RESPONSIBLE FOR SHIPMENT FROM CUSTOMER TO CUES.

Use this section as a Packing Slip.

**Please remember to write the
MRA number on the box.**

MRA #:
XXXX

Return To:

Cues
 3600 Rio Vista Avenue
 Orlando, Fl. 32805
 (407) 849-0190
 FAX (407) 425-1569
 WATS 800-327-7791

CUES PARTS & SERVICE

At CUES, we realize your return on investment is directly related to daily production in the field. By stocking the largest inventory of OEM equipment in our industry, CUES strives to ship all parts orders on the same day or within 24 hours after receipt of the order.

Whether you need a camera or a fuse, CUES will quickly process and ship your order in accordance with your schedule requirements! Our experienced parts professionals can help you with parts identification, shipping methods, equipment operation questions, and connect you to the correct specialist for troubleshooting!

CUES offers four convenient stocking locations that contain a large assortment of parts, finished products, portable, and truck mounted systems. Texas, Arizona, Oklahoma and Louisiana customers can be serviced by our local dealerships. Contact us at your most convenient stocking location! For authorized dealer locations, log onto our website at www.cuesinc.com.

Parts can be ordered via phone or facsimile! For operating hours, contact information, and locations, log onto our website at www.cuesinc.com. Contact us at your most convenient stocking location! Log onto our website at www.cuesinc.com to view the CUES Parts Department & Dealers hours & locations.

CUES Parts Department: Parts turnaround is normally within 24 hours after receipt of order. Please note that special shipping arrangements can be made at the time of the order. All return shipments received at CUES freight collect will be refused upon delivery unless previously authorized by CUES personnel. Normal operating hours are 8am to 5pm, EST., Phone: 800-327-7791, Fax: 800-831-1184.

CUES Service Depot: Service turnaround is normally 72 hours or less upon receipt at our depot, excluding weekends and holidays. All return shipments received at CUES freight collect will be refused upon delivery unless previously authorized by CUES personnel. Normal operating hours are 8am to 5pm, EST., Phone: 800-327-7791.

West Coast

For West Coast Customers:

The parts and service depot is located at 1943 S. Augusta Court, Ontario, CA, 91761. Normal operating hours are 8am to 5pm, PST
Phone: 800-544-8695

Canada

For Canadian Customers:

The parts and service depot is located at 1675 Sismet Road, Unit 2 & 3, Mississauga, Ontario L4W1P9
Phone: 905-238-9178

Midwest

CUES Midwest:

www.cuesmidwest.com
2325 Parklawn Drive, Suite K
Waukesha, WI 53186
Phone: 262-717-3165
Fax: 262-717-3167

CUES RECORD OF REVISIONS

This Record of Revision page is designed to allow the manual user to determine the engineering/manufacturing level to which the manual is written. As engineering changes to this hardware are made at CUES, necessary information in the manual will be revised to reflect those changes. The latest change level and the rationale for any change(s) will be explained in tabular format on this page to allow the manual user to be better equipped should the need arise to call CUES regarding technical information.

Original Manual	Revision	Change Description
WiFi Range Extender	11.2020	Initial preliminary release
	12.2020	Various updates required throughout the guide.

Innovation for over 50 Years

CUES is the world's leading manufacturer of closed circuit television video (CCTV) inspection, rehabilitation, pipe profiling equipment and asset inspection/decision support software. For over 50 years, CUES has provided innovative pipeline inspection technology and solutions to enable accurate condition assessment and proactive maintenance programs for buried infrastructure.

In addition to inspection equipment, CUES also designs, manufactures, and sells a broad range of pipeline rehabilitation and profiling equipment. These include chemical grouting systems for sewer line pipe joints capable of using a wide variety of grouting products. CUES also manufactures lateral reinstatement cutting systems which enable the reinstating of laterals in mainline sewers after they have been relined with any of a wide variety of liner materials. Pipe profiling is accomplished via Laser for Sonar based systems.

CUES has the most locations and dealers available to serve you! To find a local CUES facility, find the operating hours for a particular location, or to contact us at your most convenient stocking location, please log onto our website at www.cuesinc.com or call the CUES Corporate Headquarters in Orlando, Florida for more information.