

## PRODUCT MODEL NUMBER: TL-8171

### G.hn Wave-1 802.3af PoE Bridge



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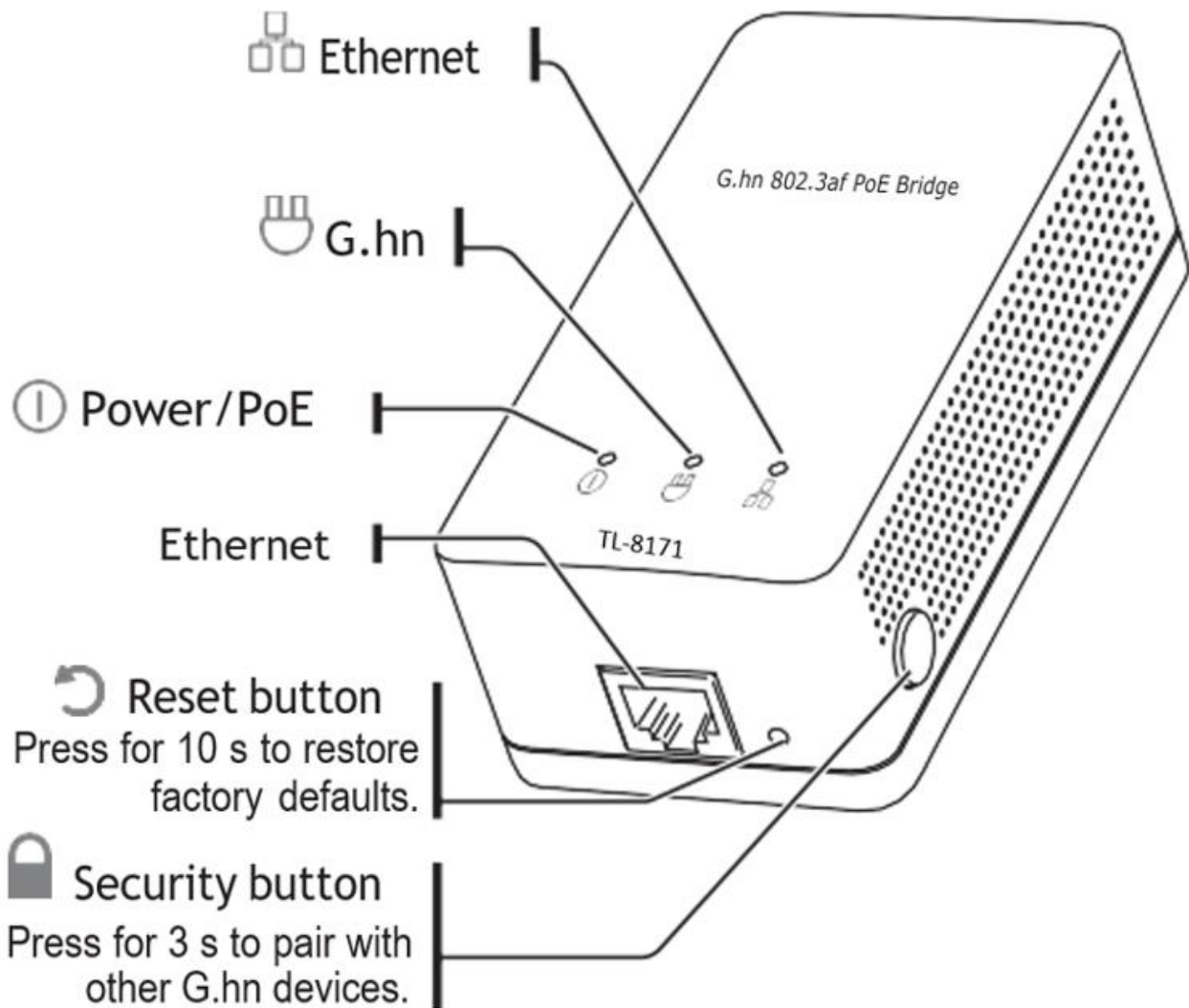
## PRODUCT OVERVIEW

TL-8171 is a high-performance PoE bridge equipped with G.hn Wave-1 technology that passes electric power along with data on twisted-pair ethernet cabling and enables you to connect your multimedia devices like smart TV, consoles, computers, printers, etc., simultaneously to the network from anywhere in the house without interference. It enables access to the internet throughout the house without having to route any additional cables and provides ultra-high speeds of up to 1Gbps\*.

Its energy-efficiency technique ensures reduction in energy consumption during low data traffic and the data is kept highly secure and reliable with the 128-bit Advanced Encryption Standard (AES) encryption. The TL-8171 makes use of MIMO technology and a maximum of 16 devices can be connected to a network group.

## KEY FEATURES

- Facilitates three applications in one AC outlet - **PoE, G.hn, AC-DC power**
- Complies with G.hn and ITU-T G.9960/G.9961/G.9962/G.9963/G.9964
- Up to 1 Gbps (PHY rate) ultra-high-speed PLC network
- Uses MIMO technology
- Features 1 x GbE port
- IEEE 802.3af PoE built-in
- Optional (for operators):
  - TR-069/TR-181 remote management
  - Priority-based and parameter-based QoS






## SPECIFICATIONS

General Guideline	
<b>Product Type</b>	G.hn 802.3af PoE Bridge
<b>PoE</b>	Supports up to 15.4W of PoE power (PSE) Compatible with IEEE 802.3af standards
<b>RJ-45 port</b>	10/100 Mbps x 1
<b>PHY Rate</b>	Up to 1Gbps
<b>Frequency Band</b>	2 to 50 MHz

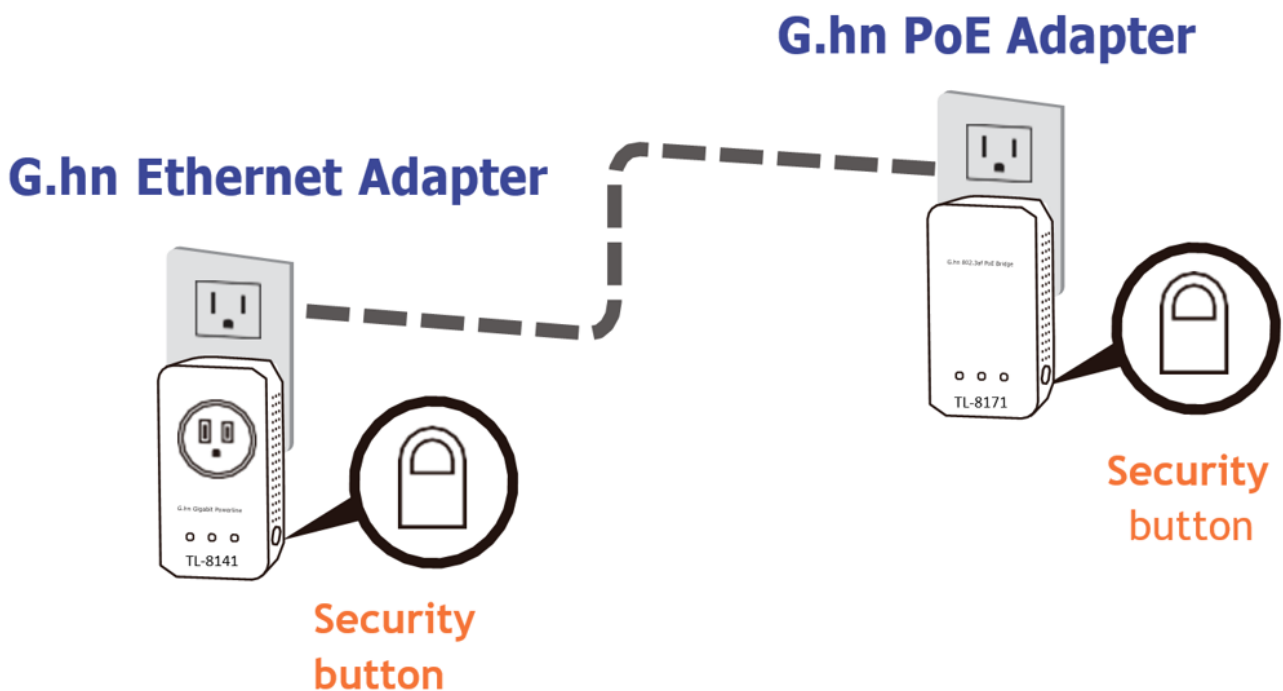
<b>Access Methods</b>	CSMA/CA, TDMA, CSMA
<b>Modulation</b>	2048/1024/512/256/128/64/32/16/ 8-QAM, QPSK, BPSK and robust modulation schemes employing diversity in time and frequency.
<b>Main features</b>	<ul style="list-style-type: none"> <li>• ITU Recommendation G.9960 – Physical Layer</li> <li>• ITU Recommendation G.9961 – Data Link Layer</li> <li>• ITU Recommendation G.9962 – Management specification</li> <li>• ITU Recommendation G.9963 – MIMO</li> <li>• ITU Recommendation G.9964 –Spectral components</li> <li>• TR-069/TR-181 remote management</li> <li>• Coexistence with HomePlug® AV/2</li> <li>• Support QoS</li> </ul>
<b>Distance</b>	AC Wire: up to 300 meters
<b>LAN Standards</b>	IEEE 802.3i (10 BASE-T) IEEE 802.3u (100 BASE-TX)
<b>Max. dev in a network Group</b>	Max 16 devices per group
<b>IGMP</b>	Support for IPv4/IGMP v1, v2, v3 snooping Support for IPv6 and MLD v1, v2 snooping
<b>Encryption</b>	128-bit Advanced Encryption Standard (AES) encryption with Key management
<b>Temperature</b>	Operating: 0~40°C; Storage: -10~60°C
<b>Relative Humidity</b>	Operating: 10~85% Non-Condensing Storage: 5~90% Non-Condensing
<b>Power Source</b>	AC 100 ~ 120 V / 60Hz
<b>LEDs</b>	Power, PLC Link, Ethernet
<b>Dimension (LxWxH)</b>	110 x 56 x 40 mm
<b>Certification</b>	US: FCC Part 15 Subpart B UL 60950-1 ICES-006

## LED BEHAVIOUR

LED	
<p> <b>Power/PoE</b></p>	<p>Solid green: AC power is detected.</p> <p>Solid amber: An IEEE 802.3af powered device is detected, and power is being supplied.</p>
<p> <b>G.hn</b></p>	<p>Solid green: G.hn pairing is successful.</p> <p>Flashing green: Data is transmitting through G.hn.</p>
<p> <b>Ethernet</b></p>	<p>Solid red: There is no connection to any device.</p> <p>Solid amber: A non-IEEE 802.3af powered device is connected.</p> <p>Flashing amber: A non-IEEE 802.3af powered device is transmitting data.</p> <p>Solid green: An IEEE 802.3af powered device is connected. (The Power/PoE LED will be solid amber.)</p> <p>Flashing green: An IEEE 802.3af powered device is transmitting. (The Power/PoE LED will be solid amber.)</p>

## PAIRING & INSTALLATION

Your devices require pairing to establish a secure connection. Follow Steps 1–4 to pair your devices.



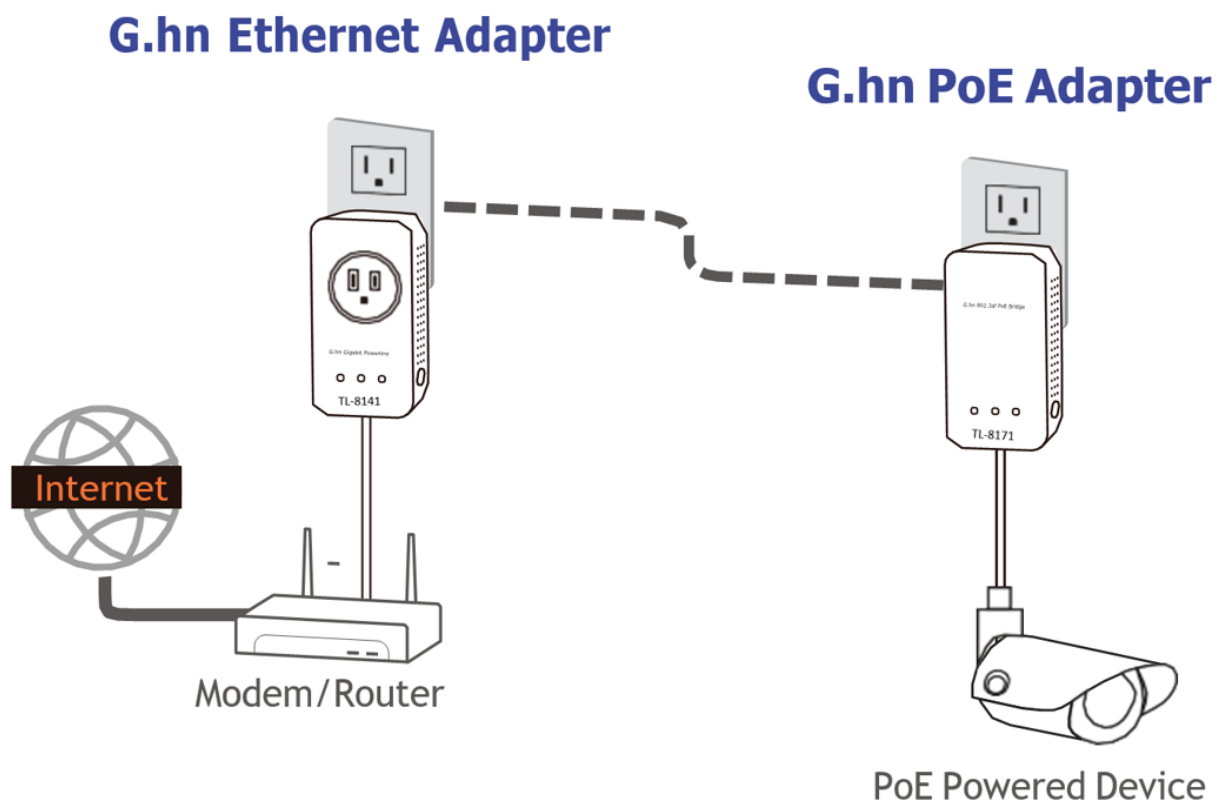
**Step 1:** Plug in the G.hn Ethernet Adapter and the G.hn PoE Adapter into two AC outlets close to each other.

**Step 2:** Press and hold the Security button “Ⓜ” on the G.hn Ethernet Adapter for 3 s until the Power LED “Ⓜ” starts to flash slowly.

**Step 3:** Press and hold the Security button “Ⓜ” on the G.hn PoE Adapter for 3 s. The Power LED will begin flashing slowly and begin pairing with the G.hn Ethernet Adapter.

**Step 4:** When the pairing process is complete, the G.hn LED “Ⓜ” will turn on and then flash quickly.

Follow Steps 5 and 6 to install your adapters.



**Step 5:** Plug the G.hn Ethernet Adapter into an AC outlet, then connect it to your home gateway for an Internet connection using an Ethernet cable.

**Step 6:** Plug the G.hn PoE Adapter into another AC outlet, then connect its Ethernet cable to an IEEE 802.3af-compliant PoE powered device.

**WARNING:** Connect the G.hn PoE Adapter only to a 100 V–120 V AC, 50 Hz/60 Hz AC outlet.

**REMINDER:** Only the G.hn PoE Adapter can supply power to a PoE-powered device. Do not connect the G.hn Ethernet Adapter to your PoE-powered device.

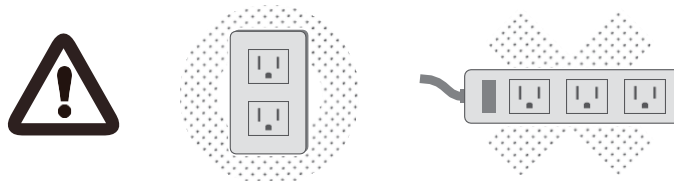
## UN-PAIRING/RESETTING A G.hn ADAPTER

Press and hold the Reset button “⌵” for 10s until Power “ⓐ” and also the G.hn “Ⓜ” LEDs turn off, then release the button.

The G.hn adapter will restore factory defaults and un-pair itself from the other G.hn adapter/G.hn network.

## WARNING

Plug each G.hn device directly into an AC wall outlet. Do not use a power strip



Connect the G.hn PoE Adapter only to a 100 V–120 V AC, 50 Hz/60 Hz AC outlet. DO NOT connect the G.hn PoE Adapter to an AC outlet over 120 V AC.

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