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## TP-Link TC-7610

# TP-Link TC-7610 DOCSIS 3.0 Cable Modem User Manual

Model: TC-7610

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## 1. INTRODUCTION

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This manual provides instructions for the installation, operation, and maintenance of your TP-Link TC-7610 DOCSIS 3.0 Cable Modem. The TC-7610 is designed to provide high-speed internet access through your cable service provider. It supports DOCSIS 3.0 technology, offering enhanced security and faster data throughput with channel bonding capabilities. This modem is certified for use with major cable internet service providers such as XFINITY from Comcast, Spectrum, Cox, Charter, Cablevision, and Bright House Networks.

The TC-7610 is a modem only and does not include Wi-Fi functionality. A separate wireless router is required to create a Wi-Fi network.



**Figure 1:** TP-Link TC-7610 DOCSIS 3.0 Cable Modem. This image shows the front of the modem with its status indicator lights and sleek design.

## 2. SAFETY INFORMATION

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Please read and follow all safety instructions to prevent damage to the device and ensure safe operation.

- Do not expose the modem to water or moisture.
- Do not place the modem near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Use only the power adapter provided with the modem.
- Ensure proper ventilation. Do not block any ventilation openings.
- Do not attempt to disassemble or repair the modem yourself. Refer all servicing to qualified service personnel.
- Place the modem on a stable, flat surface. The modem is designed to stand vertically for optimal ventilation.

## 3. SETUP

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### 3.1 Package Contents

Verify that your package contains the following items:

- TP-Link TC-7610 DOCSIS 3.0 Cable Modem
- RJ-45 Ethernet Cable
- Power Adapter
- Quick Installation Guide (this document serves as a detailed guide)

### 3.2 Hardware Connection

1. **Connect Coaxial Cable:** Connect a coaxial cable from your wall outlet to the F-Connector (female 75Ω) on the back of the TC-7610 modem. Ensure the connection is secure.
2. **Connect Ethernet Cable:** Connect one end of the provided RJ-45 Ethernet cable to the Ethernet port on the back of the TC-7610 modem. Connect the other end to your computer's Ethernet port or to the WAN/Internet port of your wireless router (if using a separate router for Wi-Fi).
3. **Connect Power Adapter:** Connect the power adapter to the Power Jack on the back of the modem, then plug the other end into a standard electrical outlet.
4. **Power On:** The modem will automatically power on. Wait for the indicator lights on the front panel to stabilize. This process may take several minutes.

**Note:** The modem's LED lights are bright white with two green for Up/Down, indicating connection status. Refer to the Operating section for details on LED indicators.

### 3.3 Activate Your Internet Service

After connecting the hardware, you will need to activate your internet service with your cable internet service provider (ISP). This typically involves providing them with the modem's MAC address and serial number, which are usually found on a label on the bottom or back of the modem.

1. **Contact your ISP:** Call your cable internet service provider (e.g., XFINITY, Spectrum, Cox) and inform them you are installing a new modem.
2. **Provide Modem Information:** Be prepared to provide the MAC address and serial number of your TC-7610 modem when requested by your ISP.
3. **Follow ISP Instructions:** Your ISP will guide you through the activation process, which may involve visiting a specific website or waiting for the modem to provision.

Once activated, your modem should establish an internet connection. If you are using a separate wireless router, connect it to the modem's Ethernet port and follow your router's setup instructions to configure your Wi-Fi network.

## 4. OPERATING THE MODEM

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### 4.1 LED Indicators

The front panel of the TC-7610 features several LED indicators that provide information about the modem's status. Understanding these indicators can help in monitoring the modem's operation and troubleshooting potential issues.

LED	Status	Description
Power	Solid Green	Modem is powered on.
Downstream	Solid Green	One or more downstream channels are locked.
Upstream	Solid Green	One or more upstream channels are locked.
Online	Solid Green	Modem is connected to the internet.
Ethernet	Solid Green	A device is connected to the Ethernet port.
Ethernet	Flashing Green	Data is being transmitted or received through the Ethernet port.

If any critical indicator (Downstream, Upstream, Online) is not solid green after several minutes, refer to the Troubleshooting section.

## 4.2 Accessing Modem Status Page (Optional)

Advanced users may access the modem's internal status page to view detailed connection information, signal levels, and logs. This is typically done by entering the modem's default IP address into a web browser (e.g., <http://192.168.100.1>). Consult your ISP or TP-Link support for specific access details if needed, as default credentials may vary or be disabled by your ISP.

## 5. MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your TC-7610 cable modem.

- **Cleaning:** Gently wipe the modem with a soft, dry cloth. Do not use liquid cleaners or aerosol sprays.
- **Ventilation:** Ensure the modem's ventilation holes are not obstructed. The vertical design aids in heat dissipation.
- **Firmware Updates:** Firmware updates are typically managed by your cable internet service provider. Do not attempt to manually update the firmware unless instructed by TP-Link support or your ISP.
- **Restarting:** If you experience connectivity issues, a simple restart of the modem can often resolve them. Disconnect the power adapter, wait 10-15 seconds, then reconnect it.

## 6. TROUBLESHOOTING

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This section addresses common issues you might encounter with your TC-7610 cable modem.

### 6.1 No Internet Connection

- **Check Cable Connections:** Ensure all cables (coaxial, Ethernet, power) are securely connected.
- **Check LED Indicators:** Verify that the Power, Downstream, Upstream, and Online LEDs are solid green. If not, refer to the LED Indicators table in Section 4.1.
- **Restart Modem:** Disconnect the power adapter, wait 10-15 seconds, then reconnect it. Allow several minutes for the modem to restart and re-establish connection.
- **Contact ISP:** If the issue persists after checking connections and restarting, contact your cable internet service provider. There might be an outage in your area or an issue with your service provisioning.

### 6.2 Slow Internet Speed

- **Verify Service Plan:** Confirm that your internet speed matches your subscribed plan with your ISP.
- **Test Directly:** Connect a computer directly to the modem with an Ethernet cable (bypassing any router) and perform a speed test. This helps determine if the modem or your router/Wi-Fi is the bottleneck.
- **Check for Interference:** If using a wireless router, ensure it is placed optimally and not experiencing interference.
- **Contact ISP:** If speeds remain low even when connected directly to the modem, contact your ISP. They can check signal levels and modem provisioning.

### 6.3 Modem Overheating

- **Ensure Ventilation:** Make sure the modem is standing vertically and its ventilation holes are clear of obstructions.
- **Placement:** Do not place the modem in an enclosed space or near other heat-generating devices.

## 7. SPECIFICATIONS

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Feature	Detail
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Feature	Detail
<b>Model</b>	TC-7610
<b>DOCSIS Standard</b>	DOCSIS 3.0 (Backward compatible with DOCSIS 1.0, 1.1, 2.0)
<b>Channel Bonding</b>	8 Downstream x 4 Upstream
<b>Max Download Speed</b>	Up to 343 Mbps
<b>Max Upload Speed</b>	Up to 143 Mbps
<b>Interface</b>	1 F-Connector (female 75Ω), 1 10/100/1000 Mbps Ethernet Interface (RJ45), 1 Power Jack
<b>Frequency Range</b>	Downstream: 108 to 1002 MHz (edge to edge) Upstream: 5 to 42 MHz (edge to edge)
<b>Protocols Supported</b>	Network: IP, ICMP, ARP Transport: TCP, UDP Application: DHCP, ToD
<b>IPv Support</b>	IPv4 and IPv6
<b>Dimensions (L x W x H)</b>	8.98 x 7.95 x 2.87 inches (228 x 202 x 73 mm)
<b>Weight</b>	1.2 pounds (0.54 kg)
<b>Operating Temperature</b>	0°C to 40°C (32°F to 104°F) <i>(Typical range for networking equipment)</i>
<b>Storage Temperature</b>	-40°C to 70°C (-40°F to 158°F) <i>(Typical range for networking equipment)</i>
<b>Operating Humidity</b>	10% to 90% non-condensing <i>(Typical range for networking equipment)</i>
<b>Storage Humidity</b>	5% to 90% non-condensing <i>(Typical range for networking equipment)</i>
<b>Certifications</b>	CableLabs Certified DOCSIS 3.0, Certified for XFINITY from Comcast, Spectrum, Cox, Charter, Cablevision, Bright House Networks

## 8. WARRANTY AND TECHNICAL SUPPORT

The TP-Link TC-7610 Cable Modem comes with an industry-leading **2-year warranty**.

For technical assistance, TP-Link offers **unlimited 24/7 technical support**. You can find support resources, FAQs, and contact information on the official TP-Link website. Please have your modem's model number (TC-7610) and serial number ready when contacting support.

**TP-Link Official Website:** [www.tp-link.com](http://www.tp-link.com)

For specific service activation or billing inquiries, please contact your cable internet service provider directly.

