

# **GL-INET GL-AR150 Mini Router User Manual**

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**GL-INET GL-AR150 Mini Router** 



#### **Product Information**

• The GL-AR150 is a mini router available in two versions: the internal antenna version and the external antenna version (GL-AR150-Ext).

The internal antenna version should not be used with any external antennas, while the external antenna version requires the antenna to be attached before connecting to the power supply. It is important to always keep the antenna connected to avoid damaging the internal radio of the router.

The package contents include the router itself. To restore the router to factory settings and clear all user data, press and hold the router for 10 seconds, then release it.

When powered up, the mini router will broadcast a Wi-Fi signal with the SSID: GL-XXXXX-xxx. To set up the router, open a browser and visit <a href="http://192.168.8.1">http://192.168.8.1</a>.

Choose your preferred language to begin the setup process.

After setting up the mini router, you will see the main web interface. In the Internet Settings section, click the New Connection button to configure your connection method.

- There are four types of connection methods available: Cable, Repeater, 3G modem, and Tethering.
- The default protocol is DHCP, but you can change it to Static if your network requires a static setting.
- If you choose Repeater mode, you can connect your mini router to another existing wireless network, such as
  Wi-Fi in hotels or public locations. The mini router will automatically search for SSIDs. Select an SSID and
  input the Wi-Fi password. Ensure that your existing Wi-Fi network supports WDS (Wireless Distribution
  System) if you plan to use the Repeater mode.
- To manage saved networks or disable the repeater manager, go to the Internet status page and click on Saved Stations. From there, you can delete or choose a network from the list to connect.
- If you are using a modem, you need to choose your Region and Service Provider. The carrier settings should

be filled automatically, but if they are incorrect, you may need to input them manually. Some modems work in Tethering (hostless) mode, which allows you to share the network from your smartphone or hostless modem to the mini router using a USB cable. Plug your phone into the mini router, click Trust when prompted on your smartphone, and turn on your phone's Personal Hotspot. Choose your phone from the device list and submit your choice. A newly added phone will be named beginning with "eth".

- The router also supports the OpenVPN client, but using it will slow down your Internet speed due to data encryption. To configure
   OpenVPN, click the OpenVPN icon and go to the VPN settings page. You will be prompted to upload your
   OpenVPN client configuration files (OVPN files). These files can usually be downloaded from your OpenVPN
- To upload the OpenVPN client configuration files, click on "Click here to select files or drag and drop them here" and choose the appropriate files (.ovpn, .zip, .tar, .gz).

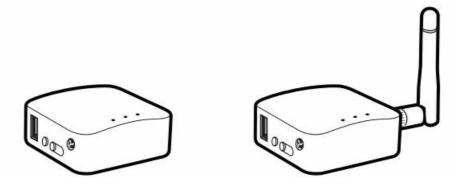
# **Product Usage Instructions**

- 1. Choose the appropriate version of the mini router (internal antenna or external antenna) based on your needs.
- 2. If using the external antenna version, attach the antenna before connecting the router to the power supply.
- 3. Do not use any external antennas with the internal antenna version.
- 4. Ensure the antenna is always connected to avoid damaging the internal radio of the router.

service provider's website or console. For more details, consult your service provider.

- 5. To restore the router to factory settings and clear all user data, press and hold the router for 10 seconds, then release it.
- 6. When powered up, the mini router will broadcast a Wi-Fi signal with the SSID: GL-XXXXX-xxx.
- 7. Open a browser and visit <a href="http://192.168.8.1">http://192.168.8.1</a> to access the router's web interface for setup.
- 8. Choose your preferred language to begin the setup process.
- 9. In the Internet Settings section, click the New Connection button to configure your connection method.
- 10. Choose the appropriate connection method based on your network setup: Cable, Repeater, 3G modem, or Tethering.
- 11. If using Repeater mode, select an SSID and input the Wi-Fi password of the existing network you want to connect to.
- 12. Ensure your existing Wi-Fi network supports WDS if using Repeater mode.
- 13. To manage saved networks or disable the repeater manager, go to the Internet status page and click on Saved Stations.
- 14. Choose your Region and Service Provider if using a modem.
- 15. If necessary, input the correct carrier settings manually.
- 16. If using Tethering mode, connect your smartphone or hostess modem to the mini router using a USB cable.
- 17. On your smartphone, click Trust when prompted and turn on Personal Hotspot.
- 18. Choose your phone from the device list on the mini router and submit your choice.
- 19. The router also supports the OpenVPN client. Click the OpenVPN icon and go to the VPN settings page to configure it.
- 20. Upload your OpenVPN client configuration files (OVPN files) by clicking on "Click here to select files or drag and drop them here".

# **Versions & Specifications**



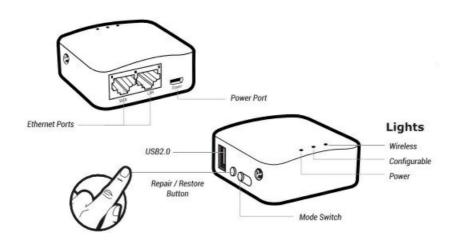
#### • GL-AR150

(Internal Antenna Version)

#### • GL-AR150-Ext

- (External Antenna Version)
- Do NOT use any external antennas.
- Do NOT use without the antenna.
- Attach the antenna before connecting to the power supply.
- Always keep the antenna connected.
- Failure to follow the above instructions may damage the internal radio of your router.
- CPU: Atheros 9331 CPU, @400MHz
- Memory / Storage: DDR2 64MB / FLASH 16MB
- Frequency: 2.4GHz
- Transmission Rate: 150Mbps
- Max Tx Power: 18dBmProtocol: 802.11 b/g/n
- WAN / LAN: 10 / 100 Mbps
- Power Input: 5V/1A
- Power Consumption: < 1.5W
- **Dimension** / **Weight:** 58 x 58 x 25 mm / 39g
- GPIO Count: 4
- Working Temperature: 0 45°C (32 113°F)

### **Product Info**



- Router
- Instructions
- · Micro USB power wire
- The USB power adapter is sold separately

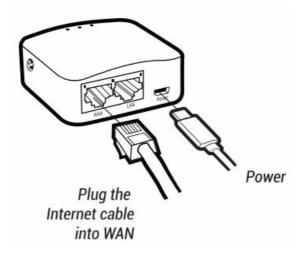
# Repair/Restore

- 1. Press and hold for 3 seconds then release, and your network will be repaired. Do this if you cannot connect to the router.
- 2. Press and hold for 10 seconds then release, and the router will be restored to factory settings. All user data will be cleared.

# **First-time Settings**

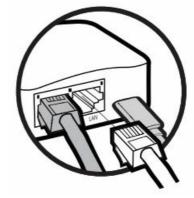
# 1. Plug-in power & Internet cable

- · When powered up, your mini router will broadcast
- Wi-Fi signal with the SSID: GL-XXXXX-xxx.



# 2. Connect via Wi-Fi

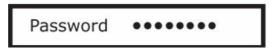
• The default Wi-Fi password is Good Life, and it is also printed on the bottom of the mini router.



- Plug the cable connecting your computer into LAN
- · Search the SSID and connect to it



• The default password is Good Life.



# 3. Set up the mini router

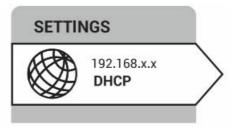
• Visit <a href="http://192.168.8.1">http://192.168.8.1</a> in your browser to set up your router; start by choosing your preferred language.



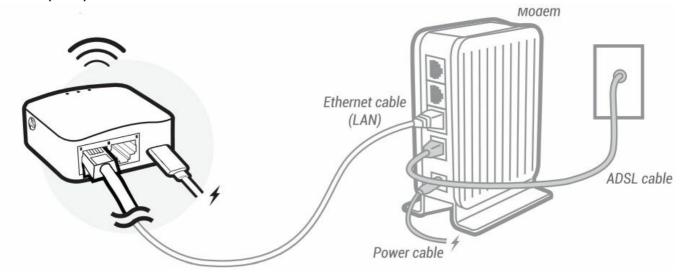
· Access the above address using your browser

# **Internet Settings**

- After you have set up your mini router, you will see the main web interface.
- Find the Internet Settings icon. then click the New Connection button. The Internet Settings window will pop up showing four types of connection methods: Cable, Repeater, 3G modem, and Tethering.



# A Cable (WAN)

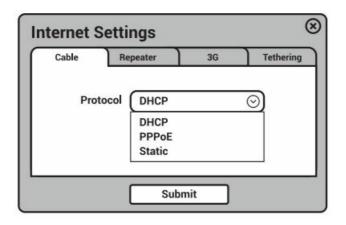


# **DHCP/Static**

• The default protocol is DHCP. If your network needs a static setting, you can change it to Static.

# **PPPOE**

• Change to PPPoE protocol when you need to apply the username and password provided by your Internet service provider.



# **B** Repeater

- Using Repeater means connecting your mini router to another existing wireless network, e.g. when you are using Wi-Fi in hotels or other public locations.
- Choose Repeater mode in your Internet Settings and the mini router will automatically search for SSIDs.
   Choose an SSID and input the Wi-Fi password.

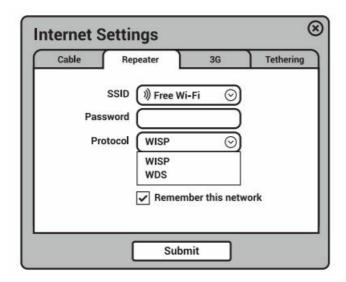


# Mode

- If you want your router to have its own subnet, you need to choose WISP mode. If you want to extend your existing network by bridging the mini router and your current router wirelessly, you can use WDS.
- Make sure your existing Wi-Fi network supports WDS. Use WDS only if you are knowledgeable about this
  mode.

#### **Saved Networks**

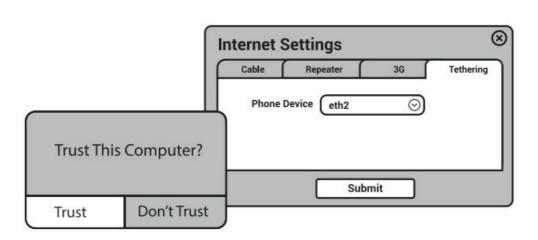
- The repeater manager will work once you set up a repeater and it will automatically connect to your available networks.
- To disable the repeater manager, uncheck the box Auto scan & reconnect on the Internet status page.
- You can manage your saved networks by clicking Saved Stations.
- Delete or choose one from the list to connect.



# **D** Tethering



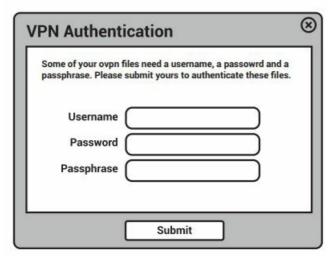
- Using the USB cable to share the network from your smartphone or hostess modem to the mini router is called Tethering.
- Plug your phone into the mini router and click Trust to continue when the message pops up on your smartphone. Then turn on your phone's Personal Hotspot. Choose your phone from the device list and submit your choice.
- A newly added phone will be named beginning with eth.



- This router supports OpenVPN clients. Using OpenVPN will slow down your Internet speed because of data encryption.
- Click the OpenVPN icon and go to the VPN settings page. The first time it will ask you to upload your OpenVPN client configuration (OVPN files). Usually, you can download it from your OpenVPN service provider's website or console. Consult your service provider for more details.

# **Upload OpenVPN configurations**

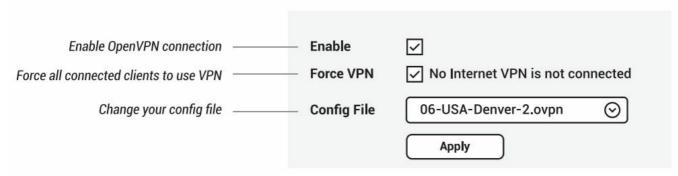
• Click here to select files or drag and drop them here: .ovpn .zip .tar.gz



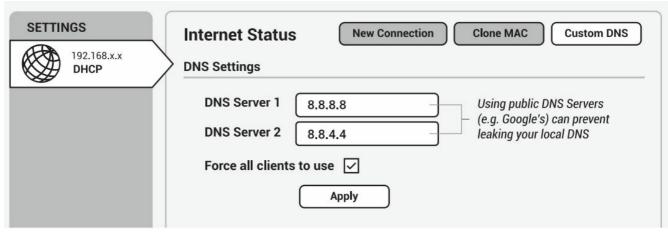
- After uploading the OVPN files, the router will check them. If you are prompted for a username and password,
  or a private key passphrase, or both, a window for VPN Authentication will pop up so that you can Submit this
  information for all files you upload.
- This may not be necessary for some service providers.

#### connect to OpenVPN

• Now you can choose from a list of configurations and apply your choice to connect as an OpenVPN client.



 To protect against DNS leaks, you must customize your DNS servers. You can enable Force all clients to override the DNS server settings for your client devices. To customize your DNS server, go to Internet Settings
 Custom DNS



To get more detailed instructions or information about compatible VPN service providers, please visit <a href="http://gl-inet.com/docs/">http://gl-inet.com/docs/</a>

#### **DIY Guidance**

# **OpenWrt Firmware**

- Our firmware is developed based on OpenWrt and you can download all the firmwares from our website: www.ql-inet.com/firmware.
- Find the available firmwares from the folder according to your device model, and they are located in different sub-folders:
- v1 folder contains release versions. It should be the default firmware shipped with the router.
- clean folder contains clean versions of OpenWit firmware, with Luci software only. By default, Wi-Fi is disabled
  and you need to enable it in Luci.
- tor folder contains Tor firmware for the device.

#### **DDWRT Firmware**

• GL-AR150 has official DDWRT firmware which you can download from the DDWRT website. DDWRT firmware is not available for other GL models. For further information, please visit <a href="https://www.dd-wrt.com">https://www.dd-wrt.com</a>

#### **Tor Firmware**

• Each model has its own Tor firmware which you need to flash to the router. It is quite easy and you can refer to our online tutorial at <a href="https://www.gl-inet.com/docs/openwrt/tor/">www.gl-inet.com/docs/openwrt/tor/</a>

# **Compile Your Own Firmware**

• If you have sufficient technical skills, you can compile your own firmware and flash to the router. Please refer to our online docs at <a href="mailto:github.com/domino-team/openwrt-cc">github.com/domino-team/openwrt-cc</a>

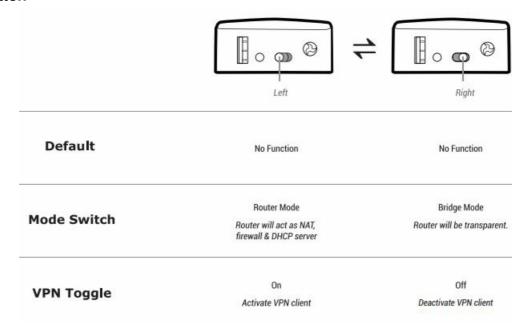
#### **Uboot Failsafe**

• If you flash the wrong firmware, you will brick your router. But you still can recover it by using the boot failsafe.

Please refer to the guide at <a href="https://www.gl-inet.com/docs/diy/uboot/">www.gl-inet.com/docs/diy/uboot/</a>

• Using the above DIY features might have a risk of bricking your router. We have no obligation to provide support, maintenance, upgrades, modifications, or new releases on DIY features. We reserve the right to interpretation the above DIY contents without further announcement.

#### **Switch Button**



- By default, the switch button has no function.
- You need to enable the above functions manually on the web interface (Available in our firmware v2.26 +).

# **Support**

# Warranty

- Each router has a one-year warranty. Accessories have a three-month warranty.
- Please use standard USB power adapter, 5V/1A.
- Any damage to the router caused by not following the instructions will render this warranty null and void.
- Any damage to the router caused by modifying the PCB, components, or case will render this warranty null and void.
- Issues caused by the use of third-party firmware may not get official support from us.
- Any damage to the router caused by inappropriate use, e.g. inappropriate voltage input, high temperature, dropping in the water, or on the ground will render this warranty null and void.
- Pictures on the instructions are only for reference. We reserve the right to change or modify these materials without further notice.

#### **Technical Supports & General Enquiry**

- For more detailed and updated instructions, please visit our website www.gl-inet.com/docs.
- For further questions, you can get help in the following ways:
- 1. Send us an email at <a href="mailto:service@gl-inet.com">service@gl-inet.com</a>
- 2. Open a ticket at <a href="https://www.gl-inet.com/tickets">www.gl-inet.com/tickets</a>

- 3. Ask in our forum www.gl-inet.com/forums
- 4. Ask in other forums e.g. OpenWrt, LEDE, or other professional websites
- Hong Kong Office GL Technologies (Hong Kong) Limited 210D Enterprise Place, 5W Science Park, Hong Kong Shenzhen Office



• www.gl-inet.com

# **Documents / Resources**



GL-INET GL-AR150 Mini Router [pdf] User Manual GL-AR150 Internal Antenna Version, GL-AR150-Ext External Antenna Version

# References

- <u>Ill Overview GL.iNet Router Docs 3</u>
- MH\_Search Manual-Hub.com
- SAPETE DD-WRT

Manuals+,