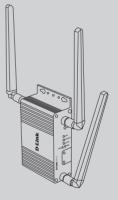


# **Quick Installation Guide**

4G LTE M2M Router

DWM-312W



Additional documentation is also available on the D-Link website

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# **Before You Begin**

This Quick Installation Guide gives you step-bystep instructions for setting up your DWM-312W 4G LTE M2M Router. The model you have purchased may appear slightly different from the one shown in the illustrations. For more detailed information about the router, please refer to the User Manual.

# **Package Contents**

This DWM-312W package includes the following items:

- DWM-312W 4G LTE M2M Router
- Power adapter
- RJ-45 cable
- DIN mounting plate
- 4 x mounting screws
- Quick Installation Guide
- Warranty Card

If any of the above items are damaged or missing, please contact your local D-Link reseller.

**Note:** Using a power supply with a different voltage than the one recommended for the device will cause damage and void the warranty for this product.

# **System Requirements**

- Computers with Windows®, Macintosh®, or Linux-based operating systems with an installed Ethernet Adapter
- Internet Explorer 11, Safari 7, Firefox 28, or Google Chrome 33 and above (for configuration)

# **Hardware Overview**

## **Right Panel LED Indicators**

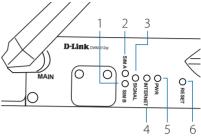


Figure 1: Right Panel LED Indicators

#	LED		Description
1	SIM B	A green LED indicates if a card is inserted into the secondary SIM card slot.	
2	SIM A	A green LED indicates if a card is inserted into the primary SIM card slot.	
3	Signal	Green	Indicates a strong signal.
		Amber	Indicates a fair signal.
3		Red	Indicates a weak signal.
		Off	Indicates no signal.
4	Internet	A green LED indicates Internet	
		connectivity.	
5	Power	A green LED indicates the	
		DWM-312W is receiving power.	

Table 1: Right Panel LED Indicator Descriptions

## Left Panel Interface Connectors

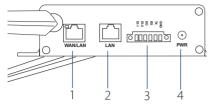


Figure 2: Left Panel Interface Connectors

#	Connector	Description
1	Ethernet WAN/ LAN Port	10/100 Mbps Ethernet WAN/LAN port.
2	Ethernet LAN Port	10/100 Mbps Ethernet LAN port.
3	DI/DO/ Grounding Port	From left to right: DI-1, DI-2, DO, RX, TX, Grounding.
4	Power Input	Input for the power adapter.

Table 2: Left Panel Interface Connector Descriptions

## **Right Panel Interface Connectors**

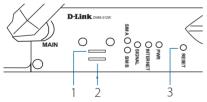


Figure 3: Right Panel Interface Connectors

#	Connector	Description
1	SIM A Slot	Primary SIM card slot.
2	SIM B Slot	Secondary SIM card slot.
3	Reset	Press and hold for 3 seconds to perform a factory reset.

#### Table 3: Right Panel Interface Connector Descriptions

#### **SMA Connectors**

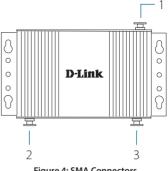


Figure 4: SMA Connectors

#	Connector	Description	
1	WIFI	Male SMA connector for the Wi-Fi antenna.	
2	MAIN Female SMA connector for the main antenna.		
3	AUX Female SMA connector for th auxiliary antenna.		

**Table 4: SMA Connector Descriptions** 

# **Hardware Installation**

# **Before You Begin**

Observe the following precautions to help prevent shutdowns, equipment failures, and personal injury:

- Install the DWM-312W in a cool and dry place.
- Install the DWM-312W in a site free from strong electromagnetic sources, vibration, dust, excessive moisture, and direct sunlight.
- Place antennas in an unobstructed area with a clear mobile signal. Avoid metal boxes, brick walls, and other dense materials.

- Visually inspect the power connector and make sure that it is fully secure.
- Do not stack any devices on top of the DWM-312W.

## Attach the External Antennas

The DWM-312W requires three external antennas to function correctly. The included antennas are interchangeable, but third party antennas may require connection to specific ports.

- Attach the two antennas labeled LTE to the SMA connectors on the side of the DWM-312W labelled MAIN and AUX. Attach the antenna labeled WIFI to the SMA connector labeled WIFI. Turn clockwise to fasten the antennas.
- Arrange the antennas so that they're pointing upwards and in a configuration to receive optimal signals.

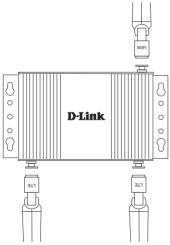


Figure 5: Attaching the Antennas

# Installing SIM Card(s)

The DWM-312W is equipped with dual SIM slots. At least one active SIM card with Internet access is required to create a mobile connection.

- Insert a micro-SIM card into the slot labeled SIM A with the contacts facing down. If you wish to install a second SIM card, insert it into the slot labeled SIM B.
- Gently press the micro-SIM into the slot until it locks into place. To remove it, press it again and the micro-SIM card will be ejected.

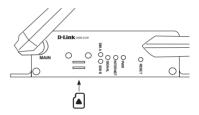


Figure 6: Installing a SIM Card

**Note**: SIM behavior must be configured from the web UI before an Internet connection can be established.

# **Powering the Device**

The DWM-312W features a flexible power input ranging from 5V/2A to 18V/0.7A. A minimum of 10 watts total power is recommended.

#### Using the Included AC Adapter

- Attach the barrel connector of the included AC adapter to the DWM-312W power port on the front panel.
- 2. Attach the AC adapter to an appropriate AC socket.

## **Connecting Devices**

The Ethernet port can be connected to an end device. Use a standard Category 5/5e/6 RJ-45 Ethernet cable to connect the end device to the DWM-312W.

The port will auto-negotiate to the highest possible port speed based on the connected device. Note that the DWM-312W supports a maximum transfer speed of 100 Mbps over Ethernet.

# **Management Options**

### **Before You Begin**

The D-Link router can be managed by using the Web User Interface (Web UI), Telnet, or Simple Network Management Protocol (SNMP) management interfaces. If you wish to manage a single D-Link router, the Web UI may be the best option. Each router must be assigned its own IP address, which is used for communication with the management PC. Please refer to the following installation instructions to get started with the Web UI.

## Web User Interface

Once the router has been successfully installed, you can begin configuration, monitor the LED panel, and display graphical statistics using a web browser. Supported browsers include: Microsoft<sup>®</sup> Internet Explorer, Firefox, Chrome, and Safari.

You need the following equipment to access the Web UI of your device:

- A PC with a RJ-45 Ethernet port
- A standard Ethernet cable

- 1. Connect the Ethernet cable to the router's Ethernet port and to the Ethernet port on the PC.
- Configure the PC's IP address to be in the network segment as the router. The router's default IP address is 192.168.0.1, with subnet mask 255.255.255.0. For example, to connect to the router using the default settings, your PC should have an IP address in the range 192.168.0.2-.254 and a subnet mask of 255.255.255.0.
- Open a web browser and enter http://192.168.0.1/ in the address field.
- 4. Log in to the administrator user interface. The default login information is:

Username: **admin** Password: **admin** 

## Mounting

Before mounting the DWM-312W or removing it from a DIN rail, please ensure that the rail is horizontal.

- 1. Fit the DWM-312W onto the front of the included DIN mounting plate.
- Insert the four included screws into the holes indicated in Figure 5: Mounting the DIN Plate, and screw them in until the DWM-312W is securely attached to the plate.



Figure 7: Mounting the DIN Plate

- With the back of the DWM-312W facing the DIN rail, lower the top part of the DIN mounting plate onto the DIN rail so that the spring-loaded hooks grip the top of the rail.
- Push the DWM-312W vertically down so that the bottom of the mounting plate rotates towards the DIN rail and locks in place.



Figure 8: Completed Installation

# **Additional Information**

If you are encountering problems setting up your network, please refer to the user manual.

Additional help is available online. To find out more about D-Link products or marketing information, please visit the D-Link support website at **http://dlink.com/support/**.

# **Warranty Information**

The D-Link Limited Lifetime Warranty information is available at the following website: http://warranty.dlink.com/.

# ENGLISH

dlink.com/support

**TECHNICAL SUPPORT** 

# **Appendix - Statements**

#### **ErP Power Usage**

This device is an Energy Related Product (ErP) that automatically switches to a power-saving Network Standby mode within 1 minute of no packets being transmitted. It can also be turned off through a power switch to save energy when it is not needed.

Network Standby: 3.12 watts

#### 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.

#### **Non-modifications Statement:**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

#### Caution:

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.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

#### Note

The country code selection is for non-USA models only and is not available to all USA models. Per FCC regulations, all WiFi product marketed in the USA must be fixed to USA operational channels only.

#### **RF Frequency Requirements**

This device is for indoor use only when using all channels in the 5.15 to 5.25 GHz frequency range. High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device. This device will not operate on channels which overlap the 5600-5650 MHz band.

It is restricted to indoor environments only.

#### **IMPORTANT NOTICE:**

#### Innovation, Science and Economic Development Canada (ISED) Statement:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### Innovation, Science and Economic Development Canada (ISED) Statement:

This device complies with ISED licence-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'ISED 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.

(i) 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;

 (i) les dispositifs fonctionnant dans la bande 5150-5250 MHz 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;

Operations in the 5.25-5.35 GHz band are restricted to indoor usage only.

Les opérations dans la bande de 5.25-5.35 GHz sont limités à un usage intérieur seulement.

#### **Radiation Exposure Statement**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0.28 m between the radiator and your body.

#### Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 0.28 m de distance entre la source de rayonnement et votre corps.

#### Japan Voluntary Control Council for Interference Statement

この装置は、クラス B情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

#### Japan Voluntary Control Council for Interference Statement

This is a Class B product based on the standard of the VCCI Council. If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

電波法により5GHz帯は屋内使用に限ります。

# **Product and Warranty Information**

To find out more about D-Link Nuclias product or marketing information, please visit the website http://www.dlink.com or https://www.nuclias.com.

The D-Link Limited Lifetime Warranty information is available at http://www.dlink.com/warranty

VCCI-B

低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、 加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停 用,並改善至無干擾時方得繼續使用。

前項合法通信,指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

For UNII產品(5GHz WLAN/WIFI)

1. 使用此產品時應避免影響附近雷達系統之操作。

#### Industry Canada statement:

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

#### Caution :

(i) 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;

(ii) where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

#### Avertissement:

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz 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;

(ii) lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.

#### **Radiation Exposure Statement:**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than xx cm between the radiator & your body.

#### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de xx cm entre le radiateur et votre corps.





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