User Manual

Before starting up the device, please read this manual carefully, particularly the router installation instructions and safety information.
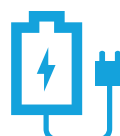
PACKAGE CONTENTS*

Router Turris Omnia   **3× antenna**   **Power adapter and cable**

ROUTER INSTALLATION

1 Connect the antennas to the connectors located on the back of the router.

2 Connect your computer and the router with an Ethernet cable. Use one of the connectors labelled LAN0 to LAN4 on the router.

3 Plug the Ethernet cable from your modem or other device given to you by your internet service provider into the WAN connector.

4 Plug the power cable into the router.

Important: Make sure that you are using a power adapter labelled **Turris Omnia (12 V, 3.33 A)**.

When booting up, the device gradually lights up the indicator LEDs on the front panel. This is a standard part of the start-up sequence.

5 Wait about one minute (until the router assigns an IP address), type **http://192.168.1.1** into your internet browser and follow the instructions of the setup wizard.

The current version of the manual is available at https://omnia.turris.cz/user_manual.

For more information go to https://omnia.turris.cz/en.

* This manual is valid for standard packaging router Turris Omnia. If you have any other version (or additional accessories), please visit https://omnia.turris.cz/user_manual for more information.

FRONT PANEL
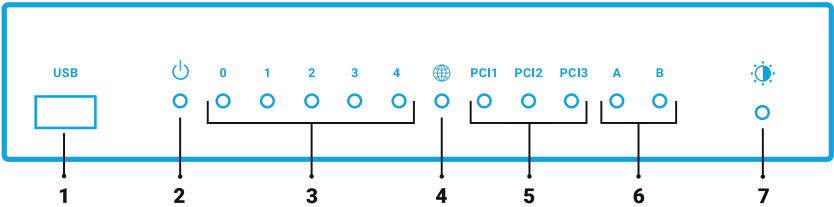
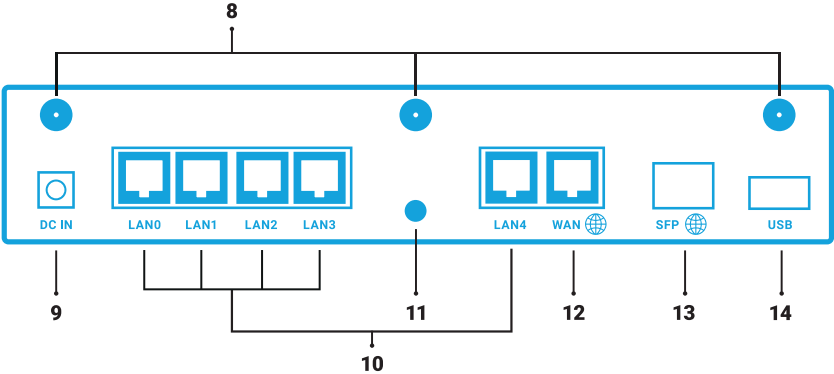**1)** USB 3.0

2) Power indicator

3) LAN interface activity indicator

4) WAN interface activity indicator

5) Expansion card activity indicator (WiFi)

Factory settings: • PCI 1 – 5 GHz WiFi
                  • PCI 2 – 2.4 GHz WiFi
                  • PCI 3 – Not used

6) User indicators

7) Button to adjust the brightness of the LEDs

REAR PANEL

8) WiFi antenna connectors

9) Power connector

10) LAN interface connectors

11) RESET button

12) WAN interface connector

13) SFP interface connector

14) USB 3.0

CONFIGURING LED INDICATORS

You can control the brightness of the indicator LEDs on the front panel using button (no. 7) located on the front of the device. Pressing the button reduces the brightness in eight steps until the LEDs turn off completely. Pressing the button again resets the brightness back to the maximum value. In some cases, disconnecting the device from the power source and then turning it on again may reset the default brightness setting to the maximum.

TROUBLESHOOTING AND OPERATING INSTRUCTIONS

DEVICE DOES NOT RESPOND, INDICATION LEDS DO NOT LIGHT UP

After the router is connected to the electrical power source, the power indicator (no. 2) must always be lit up. If this LED is dark and the router is not working, check the power connection.

Note: because the LEDs can be turned off by pressing button (no. 7), make sure that they have not been disabled by pressing the button again when you are checking the power connection.

Important: Make sure that you are using a power adapter labelled **Turris Omnia (12V, 3.33A)**.

RESTARTING THE DEVICE

If the router suddenly stops working or does not work correctly, you can restart it by briefly pressing the reset button (no. 11) on the rear panel of the device.

RESET TO FACTORY SETTINGS

If you forget your password to access the router or accidentally make the router unavailable through a change of configuration, you can restore the device to the factory settings by pressing and holding the reset button (no. 11) for five seconds. The device will confirm the return to factory settings with three flashing LEDs on the front panel. After the process finishes, the router automatically restarts.

Important: Restoring the factory settings deletes all user data and settings!

Pressing the reset button (no. 11) for different time periods than five seconds sets the device to advanced recovery modes. More information is available at https://omnia.turris.cz/en.

SAFETY INFORMATION

Keep the device dry and prevent collisions with other objects when storing, transporting and using the device. Do not allow contact with water or humidity and keep the device and its accessories dry. Only handle the device with dry hands, and if possible disconnect it from the power source. Always keep the device at a sufficient distance (1-2 metres) from sources of heat and fire, such as heaters or candles. Keep the device at a sufficient distance from electrical appliances that generate a strong electromagnetic field, such as microwave ovens or refrigerators. Place the device in a cool, well-ventilated location. Intended for indoor use only. Do not expose to direct sunlight. The operating temperatures of the device are 0°C to 40°C. Do not cover the device with any objects. Keep at least 10 cm of free space around the device to ensure that the heat generated can freely dissipate. If any object or liquid gets into the device, turn it off immediately. Unplug the power supply and all other cables. Turn off the device during thunderstorms and unplug all cables to prevent lightning damage. Only use the power adapter in a power grid that meets the parameters listed in the adapter's specifications. A mismatch in the power supply could cause fire and damage to the power adapter or the device. Do not use the power adapter if it is damaged. Doing so may cause an electric shock. It is normal for the device to generate heat during operation. Keep the device and all accessories clean and use it in a dust-free environment. Keep the device and its accessories out of the reach of children.

DISPOSAL

This device may not be disposed of in household waste. To ensure proper disposal of the product, deliver the used equipment to a designated collection point, where it will be accepted free of charge.

Proper disposal of the product helps conserve natural resources and prevents any potential negative impact on the environment and human health that could result from incorrect waste disposal.

DEVICE SPECIFICATION

DEVICE NAME:	Router Turris Omnia
MODEL:	RTROM01
MANUFACTURER:	CZ.NIC, z. s. p. o., Milešovská 1136/5, 130 00 Prague 3, IČ: 67985726
INTERFACES:	5× 10/100/1000Mbps LAN
	1× 10/100/1000Mbps WAN
	1× SFP
	2× USB 3.0 host
	RESET button
	Button to adjust the brightness of the LEDs
DIMENSIONS:	190 × 135 × 40 mm (W × D × H)
ANTENNAS:	3× 2.4 GHz/5 GHz 5 dBi omni-directional RP-SMA 3T3R MIMO (optional accessory)

WIRELESS SPECIFICATIONS (OPTIONAL ACCESSORY)

	Built-in Compex WLE900VX WiFi card:
SUPPORTED STANDARDS:	IEEE 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac
FREQUENCY:	2.4 GHz or 5 GHz
TRANSFER RATE:	5 GHz: up to 1.3 Gbps; 2.4 GHz: up to 450 Mbps
TRANSMISSION POWER:	23 dBm max.
ENCRYPTION:	64/128-bit WEP, WPA / WPA2, WPA-PSK/WPA2-PSK
	Built-in Compex WLE200N2 WiFi card:
SUPPORTED STANDARDS:	802.11b, 802.11g, 802.11n
FREQUENCY:	2.4 GHz
TRANSFER RATE:	300 Mbps
TRANSMISSION POWER:	16 dBm max.
ENCRYPTION:	WEP, WPA, WPA2

HARDWARE SPECIFICATIONS

PROCESSOR:	Marvell Armada 385 1.6 GHz
RAM:	1 GB DDR3 (2 GB in the RTROM01-2G model)
OPERATING SYSTEM:	Turris OS with an automatic update system
EXPANSION INTERFACES:	3× mini PCI express slot (one of which is switchable to mSATA)
	1× I²C bus
	1× SPI bus
	2× UART
	10× GPIO signal
POWER CONSUMPTION:	5 W to 40 W max. (depending on the connected peripherals)

POWER ADAPTER

INPUT:	100-240 V AC 50-60 Hz, 1.0 A
OUTPUT:	12 V DC / 3.33 A, 40 W max.

OPERATING CONDITIONS

AMBIENT TEMPERATURE:	0 °C to 40 °C
STORAGE TEMPERATURE:	-40 °C to 70 °C
AMBIENT HUMIDITY:	10 % to 90 % non-condensing