

**4G onBoard Compact Basic** - 4G/WiFi Connectivity System with single SIM Code: PF AN NWIFI26

**4G onBoard Compact Basic Black** - 4G/WiFi Connectivity System with single SIM - Black Code: PF AN NWIFI27

Thank you for purchasing a Scout product. This guide refers to all the systems listed above, before installing the system please read carefully all instructions. Customer comments are welcome.

# Content

The contents of the box are as follows: 1 pc. antenna dome; 1 pc. user manual.

# Product label

Please carefully keep the information shown on the label below, relating to the router unit contained inside the dome. This information allows you to connect to the router's operating system to enter important data such as the SIM card PIN and its APN, as well as configure the numerous functions available.





**SERIAL**: Serial number is a unique 10-digit device identifier. It is required when connecting the device to the Remote Management System (see page 9/11).

SSID 2.4GHz: The broadcasted SSID (Service Set Identifier) of the wireless network operating at 2.4 GHz.

WIFI PASSWORD: A custom passphrase used for authentication (at least 8 characters long).

**USERNAME**: A default value "admin" is used for product connection.

**PASSWORD**: A custom passphrase used for product connection (at least 8 characters long). When accessing the system for the first time you will be asked to change the password: we highly recommend to confirm the default password so that the information shown on the product label will remain valid.

**QR CODE**: Scan the QR CODE to automatically join the 2.4GHz wireless network.

You can find the product label in the following positions:

- 1 product label in the user manual (see above);
- 2 product label in sticker (stapled to the manual);
- 1 product label on the bottom of the dome.

Losing the information contained in the product label makes it impossible to make future changes to the system, such as entering the data of a new SIM card that will be used.

#### Be careful never to lose the product label.

It is strongly recommended to copy the information contained in the product label in a safe place, or take a photo of it to always have the information within easy reach.

# Safety information

Before starting operating the device, please review recommendations and precautions to minimize the possibility of accidents. Safety precautions presented are supplementary and subject to the local safety regulations. When various operations are executed on the device, the user must fully follow the safety instructions and recommendations provided with the device.

## RF exposure

This device meets the official requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by authorized agencies. The device must be used with a minimum separation of 20 cm from a person's body to ensure compliance with RF exposure guidelines. Failure to observe these instructions could result in your RF exposure exceeding the applicable limits.

The external antenna must be installed to provide a distance of at least 20 cm from any people and must not be co-located or operated in conjunction with any other antenna or transmitter.

## Router operating conditions

- Operating temperature: -40° to +75° Celsius
- Humidity should be in the range of 10% to 90% (non-condensing). Only use the device in dry environments.
- Out of direct sunlight
- Away from heat source, corrosive substances, salts, and flammable gases

# Faulty and damaged products

- Do not attempt to disassemble the device or its accessories.
- Only qualified personnel must service or repair the device or its accessories.
- If your device or its accessories have been submerged in water punctured or subjected to a severe fall, do not use until they have been checked at an authorized service center.

# **Electrical safety**

- Only use approved accessories.
- Do not connect with incompatible products or accessories.
- It is recommended to ground devices with grounding terminals before connecting them to power. Failure to ground appropriately might result in a shock hazard. The cross-sectional area of the protective grounding conductor should be at least 1mm2.

# Product handling

- You alone are responsible for how you use your device and any consequences related to its use.
- Use of your device is subject to safety measures designed to protect users and their environment.
- Always treat your device and its accessories with care and keep it in a clean and dust-free place.
- Do not expose your device or its accessories to open flames, lit tobacco products, liquid, moisture, or high humidity.
- Do not drop, throw or try to bend your device or its accessories.
- Do not use harsh chemicals, cleaning solvents, or aerosols to clean the device or its accessories.
- Do not paint your device or its accessories.
- Do not attempt to disassemble your device (exemptions for devices that require disassembly for SIM insertion) or its accessories: it does not contain any user-serviceable parts. For safety reasons, the equipment should be opened only by qualified personnel.

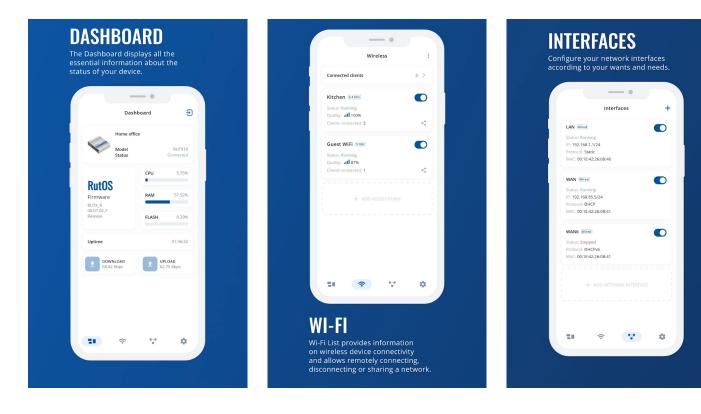
- Make sure to use ESD personal protective equipment while the equipment is serviced.
- Do not use your device in an enclosed environment where heat dissipation is poor.
- Prolonged use in such space may cause excessive heat and raise ambient temperature, which will lead to the automatic shutdown of your device or the disconnection of the mobile network connection for your safety. To use your device again after such a shutdown, cool it in a well-ventilated place before turning it on.
- Please check all national laws and local regulations for the disposal of electronic products.
- Do not operate the device where ventilation is restricted.
- Do not use or install this product near water to avoid fire or shock hazards.
- Avoid exposing the equipment to rain or damp areas.
- Arrange power and Ethernet cables so that they are not likely to be stepped on or have items placed on them.
- Ensure that the voltage and the rated current of the power source match the device's requirements. Do not connect the device to an inappropriate power source.
- During a thunderstorm, no operations should be carried out on the device and cables.
- The unit must be powered off where blasting is in progress and explosive atmospheres are present or near medical life support equipment.
- Do not leave your device and its accessories within reach of small children or allow them to play with it. They could hurt themselves or others and could accidentally damage the device. Your device contains small parts with sharp edges that may cause an injury choking hazard.
- Like any wireless device, this device operates using radio signals, which cannot guarantee connection in all conditions. Therefore, you must never rely solely on any wireless device for emergency communications or otherwise use the device in situations where the interruption of data connectivity could lead to death, personal injury, property damage, data, or other loss.
- The device may become warm during regular use.

# APP for Android and iOS

# RutOS

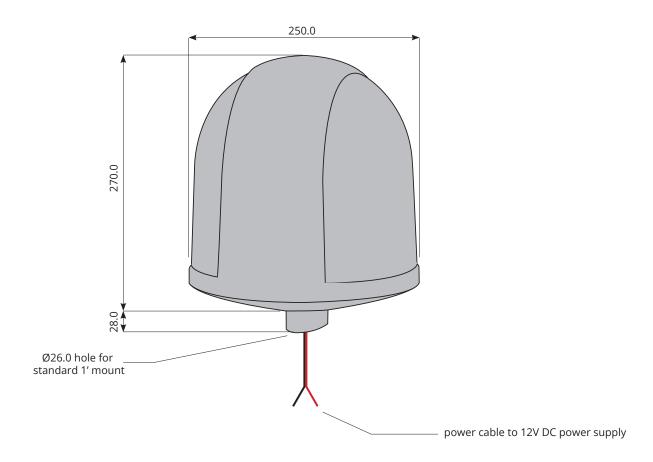
**RutOS** is an application developed for Android and for iOS to have complete control and monitor of the router. It offers a WiFi and device list for wireless connectivity control and Traffic Charts to analyse your internet speed accurately and a Dashboard where you can see all the crucial metrics of connected devices.

You can dawnload the app Teltonika RutOS for free on Goggle Play and App Store.



# Antenna installation

The dome encloses 2 high-gain 4G, built in UV-resistant material, IP68. It must be installed in a position with clear view 360° around to maximize the performance of signal reception/transmission.



Cables must be connected as described below.

- power cable: use this cable to power the dome with 12V DC (input voltage range: 9 – 30V DC). Do not use another voltage to avoid damage to the internal electrical components of the dome.



## Mounting accessories

Scout supplies several deck mounts and rails mounts for installing the dome.



One way nylon mount 4 cm (2") high





One way stainless steel mount 4 cm (2") high

PA-42 cod. PF AC NBASE016



One way nylon mount 10 cm (4") high









One way stainless steel mount 10 cm (4") high

**PA-40** cod. PF AC NBASE013



Stainless steel rail mount

**PA-83** cod. PF AC NBASE017

# Inserting the SIM card

The dome is provided on its bottom with a push-pull SIM card slot with IP67 level, unscrew the cap and insert the SIM card. The 4G onBoard Compact Basic uses Nano SIM card. If you have a Mini or Micro SIM card you need to use a SIM adapter. After having inserted the SIM card close the cap back to protect it from the external environment.

The sticker positioned closed to the SIM card slot indicates the correct way of the SIM card insertion.

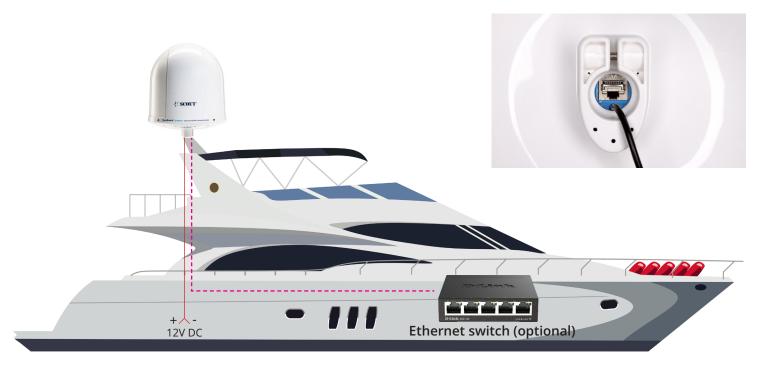




Switch off the 4G onBoard Compact Basic before inserting the SIM card.

# Wired Ethernet connectivity

The dome is provided on its bottom with a CAT6 standard Ethernet port that can be used to set up a wired network inside the boat (suggested for larger boats and aluminium boats). Additionally, an Ethernet switch installed inside the boat (optional) allows the wired connection of multiple devices or access point(s) to boost up the WiFi connectivity inside the boat.



The use of a stadard Ethernet (RJ45) cable CAT5 or superior is recommended.

## Configure your computer (Windows)

There are a few steps to follow to configure the system for first use, it is possible to carry out the configuration by connecting wirelessly to the dome or by connecting via the LAN ethernet cable (the one marked with the words "TO LAN").

The following procedure refers to the configuration made in wireless mode.

1. Ensure the Wireless network connection is Enabled. Go to Start — Control Panel — Network and Internet — Network and Sharing Center. Click on the **Change adapter settings** in the left panel, then right-click on Wireless Network Adapter, and select Enable.

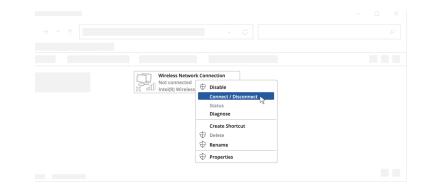
Wireless Network	
writelss network Connection Intel(R) Wireless Status Diagnose	
Create Shortcut	
Properties	

2. Check if IP and DNS are obtained automatically. Right-click on Wireless Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.

3. If not selected, check to **obtain an IP address** and **obtain DNS server address automatically**. Click OK.

ocol Version 4 (TCP/IPv4) Propertie	5		
Alternate Configutation			
otain an IP address automatically			
otain DNS server address automati	cally		
		Ac	ivanced
		ок	Cancel
	Alternate Configutation		Alternate Configuration

4. Connect to a wireless network by right-clicking on Wireless Network Adapter and selecting Connect.



5. Choose the wireless network RUT\_\*\*\*\*\_2G from the list and click Connect. Enter the WiFi password located on the product label.

Teltonika_Router	r
Secured	
Connect au	utomatically
_	
	Connect

#### Login to device

1. To enter the router's Web interface (WebUI), type http://192.168.1.1 into the URL field of your Internet browser.

2. When prompted for authentication enter the USERNAME "admin" and enter the PASSWORD located on the product label.

TELTONIKA   Netwo	orks	
	Username	
AUTHORIZATION REQUIRED	admin	
Please enter your username and password	Password	0
	LOG IN	

3. After logging in, you must set a new password for security reasons. You will not be able to interact with the router's WebUI until the default password is changed. The new password must consist of a minimum of **8 characters**. Requirements: one uppercase letter, one lowercase letter, and one digit. <u>We highly recommend to confirm the default password so that the information shown on the product label will remain valid.</u>

4. Next, the Configuration Wizard will start to help you set up some of the router's main operational parameters.

5. Finally, let's verify the Mobile signal strength. Go to the **Status** — **Network** page and pay attention to the **Signal Strength** indication.

MODEM 🚺	<b>"</b> ∥∬ -44 dBm
DATA CONNECTION Connected	
STATE registered (home); LTE; 4G+ (LTE-A)	
SIM CARD INFO SIM 1 Ready	
BYTES RECEIVED / SENT 42.6 MB / 2.5 MB	

#### Router Setup Wizard

The Setup Wizard is a tool that offers a simplified version of other WebUI pages used to set some of the most relevant device parameters: **Time / LAN / WAN / WiFi / RMS** 

You will be greeted with the Setup Wizard the first time you login, after you have changed the device default password. On other logins you will be redirected to the Overview page, but you can reach the Setup Wizard any time via the **System > Setup Wizard** page.

This page is an overview of the Setup Wizard tool.

#### General

The **General** section is used to configure the device's time, language and WebUI mode settings.

See the reference picture on the following page

#### ✓ WEBUI SETTINGS

Language	English
Configuration mode	Advanced
✓ GENERAL SETTINGS	
Current system time	11/22/2022, 11:53:25 AM
	SYNC WITH BROWSER
Time zone	
SKIP WIZARD	NEXT

## LAN

The **LAN** section is used to configure the device's local area network (LAN) and DHCP server settings. A DHCP (Dynamic Host Configuration Protocol) server can automatically configure the TCP/IP settings for any device that requests such a service. If you connect a device that has been configured to obtain an IP address automatically, the DHCP server will lease out an IP address from the available IP pool and the device will be able to communicate within the device's private network.

$\sim$ LAN CONFIGURATION		
IPv4 address	192.168.1.1	
IPv4 netmask	255.255.255.0	
$\sim$ DHCP CONFIGURATION		
Enable DHCP	Enable ^	
Start IP	192.168.1.100	
End IP	192.168.1.249	
Lease time	12 Hours A	
BACK SKIP WIZARD		NEXT
Mobile		

The **Mobile** section is used to configure the device's SIM card parameters.

^	MOBILE CONFIGURATION   MOB1S1A1	
	Auto APN	off on
		Connection is or will be established without using APN
	PIN	
<	BACK SKIP WIZARD	NEXT

Field	Value	Description
Auto APN	off   on; default: on	An Access Point Name (APN) is a gateway between a GSM, GPRS, 3G or 4G mobile network and another computer network. Depending on the contract, some operators may require you to enter the APN just to complete the registration to a network. In other cases an APN is used to get special parameters from the operator (e.g., a public IP address) depending on the contract. Auto APN scans an internal Android APN database and selects an APN based on the SIM card's operator and country. If the first automatically selected APN doesn't work, it attempts to use the next existing APN from the database.
PIN	string; default: none	A 4-digit long numeric password used to authenticate the modem to the SIM card.



We strongly suggest setting **Auto APN** to **OFF** and manually entering the APN of the operator used. If you don't know the APN, you can request it from your operator or retrieve it with a web search.

#### WiFi

The WiFi section is used to configure the device's WiFi Access Points (APs). The router supports one type of WiFi: 2.4 GHz.

#### WIFI 2.4 GHZ

Enable	off on	
ESSID	RUT_4E1A_2G	)
Password		〕◎
< BACK SKIP WIZARD		NEXT

# RMS

This section is used to configure the settings required to connect the device to the **RMS** (Remote Management System) - a cloud system designed by Teltonika and intended for remote monitoring and management of Teltonika-Networks products.

✓ RMS SETTINGS		
	Connection type	Enabled
	Hostname	rms.teltonika-networks.com
	Port	15009
$\sim$ status		
Management status		Enabled
Connection state		Failure (Error: Failed to resolve hostname.)
Serial number		1114921763 📋
Lan MAC		00:1E:42:
Next connection after		00:00:08
CONNECT		

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# Router supported frequency bands

Different countries and network operators use different frequency bands for communication in their respective mobile networks. Therefore, in order to communicate within an operator's network, the mobile equipment to has to support the frequency bands used by that operator.

Product code	Region (Operator)	Supported Bands
PF AN NWIFI24 PF AN NWIFI25	Europe, The Middle East, Africa, Australia, APAC, Brazil, Malaysia	<ul> <li>4G (LTE-FDD): B1, B3, B5, B7, B8, B20, B28, B321</li> <li>4G (LTE-TDD): B38, B40, B41</li> <li>3G: B1, B3, B5, B8</li> </ul>
PF AN NWIFI33	USA, Canada	<ul> <li>4G (LTE-FDD): B2, B4, B5, B7, B12, B13, B25, B26, B291, B30, B66</li> </ul>
PF AN NWIFI34		• 3G: B2, B4, B5

## Router user manual

All the information ragarding the router are hosted by a Wiki page which contains user manuals, configuration guides, certification information and much more.

Please find it at the following internet address: https://wiki.teltonika-networks.com/view/RUT360\_Manual



This sign on the package means that all used electronic and electric equipment should not be mixed with general household waste.

CE

Hereby, SCOUT declares that this system is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://wiki.teltonika-networks.com/view/RUT360\_Certification\_%26\_Approvals

Hereby, SCOUT declares that the radio equipment is in compliance with Radio Equipment Regulations 2017. The full text of the UK declaration of conformity is available at the following internet address: <u>https://wiki.teltonika-networks.com/view/RUT360\_Certification\_%26\_Approvals</u>