

Steora CLASSIC



Installation manual

NOTE:

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Contents

1. UNPACKING THE BENCH	5
2. PREPARING THE BASE FOR INSTALLATION PROCEDURE	6
2.1. FOUNDATION DIMENSIONS AND CABLES POSITIONS.....	7
3. BENCH INSTALLATION.....	8
3.1. BENCH INSTALLATION WITHOUT A POWER OR ETHERNET CABLE	8
3.2. BENCH INSTALLATION WITH POWER AND/OR ETHERNET CABLE	9
4. CONNECTING THE CABLES (ADDITIONAL OPTION)	10
4.1. CONNECTING THE 230/110V POWER CABLE.....	10
4.2. CONNECTING ETHERNET (NETWORK) CABLE	12
5. INSTALLING THE COVER ON THE SERVICE HATCH OF THE LEG	13
6. SIM CARD INSTALLATION (ADDITIONAL OPTION)	14
7. OCCASIONAL AND PERMANENT BENCH ACTIVATION.....	15
7.1. OCCASIONAL BENCH ACTIVATION (INTERMITTENT WORK MODE)	15
7.2. PERMANENT BENCH ACTIVATION (PERMANENT WORK MODE).....	15
8. WI-FI SETTINGS - APN (ADDITIONAL OPTION)	16

a. Bolts necessary for bench assembly (included in the packaging)

No.	Bolts and nuts	Quantity
1	Fischer bolt anchor FBN II 6	2
2	M6 hexagon nut (DIN934)	2
3	Plain washers - DIN 125 A	2
4	ID8, S2.5 disc spring (DIN2903)	2
5	Fischer bolt anchor FBN II 8	2
6	M8 hexagon nut (DIN934)	2
7	A8 Washer (DIN125)	2
8	ID10.2, S2.5 disc spring (DIN2903)	2
9	M3×35 wood screw (DIN7505A), Zn	34
10	Ø6×80 hanger screw (DIN 99065), Zn	4
11	A6 Washer (DIN9021), Zn	4
12	M6 Wingnut (DIN315), Zn	4

b. Bench installation tools

Tools	Quantity	Size
Combination wrench	1	13
Combination wrench	1	10
Torx key (included)	1	T10
Phillips head screwdriver	1	1
Wire strippers	1	-

1. Unpacking the bench

- 1) Steora Classic bench is transported in suitable wooden packaging (crate) in order to remain protected during transport. When the bench is delivered, please visually check the condition of the crate and the existence of the lead and wire seal, the lack of which indicates the box was opened during transit.
- 2) The wooden crate contains a movable top panel and side panel that need to be removed in order to take out the bench. It is recommended to remove the panels of the box only on a flat surface near the place of installation of the bench. To remove the panels of the box, it is recommended to use a cordless drill/crosshead screwdriver.



- 3) Remove the panels of the wooden crate in the following order:
 - a. Remove all screws from the top panel of the crate, and then remove the top panel
 - b. Remove all screws from the side panel of the crate (only one side has screws), and then remove the side panel



- 4) The flooring of the crate on which the bench stands contains anchor bolts that ensure the stability of the bench during transport. The legs of the bench are mounted on screws and fastened with a wingnut. In order to separate the bench from the crate, it is necessary to remove the wingnut and then carefully raise the bench above the anchor bolts and take it out of the crate.



2. Preparing the base for installation procedure

- 1) The base needs to be flat and hard. Concrete with strength class C20/25 should be used as a reference. With regard to base, the condition is met by an equivalent asphalt or stone surface, while earth surfaces are unsuitable for installation.
- 2) The minimum space required for mounting the bench is 190 cm in length and 72 cm in width. The minimum required base depth is 10 cm.
- 3) If a hybrid module is purchased with the bench (additional option), it is necessary to prior set (pre-install) a 230/110V power cable in the base. A PGP cable 3x1.5 mm² is suitable, installed so that it protrudes from the base at a length of 20 cm. The power cable must be precisely installed in the base so that during the installation of the bench it is placed in the leg of the bench marked with number 1 in the following figure:
- 4) If a Wi-Fi module (additional option) that communicates via ethernet cable is purchased with the bench, it is necessary to prior set (pre-install) the ethernet cable in the base. The appropriate ethernet cable is a 26AWG ethernet cable, installed so that it protrudes from the base at a length of 20 cm. Note: RJ45 connector is installed after the bench installation. The ethernet cable must be precisely installed in the base so that during the installation of the bench it is placed in the leg of the bench marked with number 2 in the following figure:



- 5) The exact positions and dimensions for the preparation of the power or ethernet cable in the base can be found on the next page in chapter 2.1. Foundation dimensions and cables positions. The cables should be installed so that they protrude from the base at least 20 centimetres.
- 6) Before installation, be sure to unplug the power cable to prevent electric shock. The installation is to be executed by an experienced electrician.

3. Bench installation

3.1. Bench installation without a power or ethernet cable

The following instructions describe the installation of a Steora Classic bench without the hybrid module (which requires a 230/110V power cable) and/or a Wi-Fi module that communicates via ethernet cable.

- 1) Place the bench on the base position where it will be permanently installed and mark drilling hole positions through the holes on each leg with a pencil.
- 2) After marking the position of the drilling holes on the base, move the bench in order to drill the holes for the anchor bolts
- 3) Drill four holes 60 mm deep in the marked positions using a $\varnothing 8$ mm drill bit
- 4) Insert the FBN 8 anchor bolts into the drilled holes so that the lower part of the bolt fits entirely into the previously drilled hole. Use a hammer in order to get the bolt to enter the hole and achieve an interference fit.
- 5) Place the bench on the anchor bolts so that the bolts pass through the round holes in the legs of the bench.
- 6) When all four bolts are correctly positioned in the legs of the bench, install the disc spring ID10.2, S2.5 (DIN2903) on the anchor bolts, followed by the washer A8 DIN125, and finally the nut M8 DIN934.
- 7) Using a 13 mm combination wrench, tighten the nut so that the bench leg cannot be detached from the base.
- 8) After tightening all four nuts, check the stability of the bench and the strength of the base, and if necessary, additionally tighten the nuts in the legs.

Necessary bolts (included in the packaging)

- FBN || 8 fischer bolt anchor
- ID10.2, S2.5 disc spring (DIN2903)
- A8 Washer (DIN125)
- M8 hexagon nut (DIN934)

3.2. Bench installation with power and/or ethernet cable

The following instructions describe the installation of Steora Classic bench with purchased hybrid module (which requires a 230/110V power cable) and/or Wi-Fi module that communicates via the ethernet.

- 1) Installation of the bench with additional power and/or ethernet cable requires the prior installation of the mentioned cables in the base. Details on the cables' position are described in Chapter 2. Preparing the base for installation procedure.
- 2) The legs of the Steora Classic bench, in addition to the round holes used to connect the bench to the base via anchor bolts, also contain triangular holes through which the power and/or ethernet cable is routed. It is important that the cables are accurately positioned when preparing the base so that they enter the leg of the bench without jamming or squeezing that could damage the cable. You can find the correct way of routing the cables through the triangular leg holes in Chapter 4. Connecting the cables.
- 3) Place the bench on the base position where it will be permanently installed by running the cables through the correct legs, marked in Chapter 2. Preparing the base for bench installation.
- 4) When the bench is correctly placed on the base and the cables neatly placed into the bench legs, mark the holes in the hole of each leg with a pencil.
- 5) After marking the position of the holes on the base, carefully move the bench and pull the cables out of the legs to drill the holes for the anchor bolts.
- 6) For legs without cables, drill holes 60 mm deep in the base using a $\varnothing 8$ mm drill bit and insert FBN 8 anchor bolts using a hammer to achieve an interference fit.
- 7) For legs with cables, carefully drill holes 50 mm deep in the base using a $\varnothing 6$ mm drill bit, minding not to damage the cables, and then install FBN 6 anchor bolts using a hammer to achieve an interference fit.
- 8) Place the bench on the bolts, so that the bolts pass through the holes in the bench legs. At the same time, carefully run the cables through the triangular holes in the legs
- 9) Once all four bolts and cables are properly positioned in the bench legs, complete connecting the bench and the base the following way:
 - a. In this order place the following on the fischer bolt anchor FBN 8: disc spring D10.2, S2.5 (DIN2903), followed by A8 washer DIN125, and finally M8 nut DIN934.
 - b. In this order place the following on the fischer bolt anchors FBN 6 (bolts in the legs where the cables are): disc spring ID8, S2.5 (DIN2903), then A6 washer DIN125, and finally M6 nut Din934
- 10) Tighten the M8 nuts using a 13 mm combination wrench and tighten the M6 nuts using a 10 mm combination wrench. The nuts should be tightened so that the bench leg cannot be detached from the ground.
- 11) After tightening all four nuts, check that the cables are in place, then check the stability and strength of the bench in the base, and if necessary, additionally tighten the nuts in the bench legs.
- 12) After checking the stability of the bench, proceed with cable installation according to the instructions in Chapter 4. Connecting the cables

Required bolts (included in the packaging):

- FBN 8 and FBN 6 fischer bolt anchors
- ID10.2, S2.5 (DIN 2903) and ID8, S2.5. (DIN2903) disc springs
- A8 and A6 DIN125 washers
- M8 and M6 DIN934 nuts

4. Connecting the cables (additional option)

4.1. Connecting the 230/110V power cable

NOTE:

The power cable is installed in the base and connected to the bench only if a Hybrid module is purchased with the bench

Connecting of the power cable is to be executed by an experienced electrician

- 1) The power cable is to be connected after the bench is attached to the base, and the cable carefully routed through the bench leg to the outer opening in the leg, as described in Chapter 3.2. Bench installation with power cable
- 2) Disassemble the power connector and first install the clamping nut on the cable protruding from the base through the bench leg
- 3) After placing the clamping nut, place the rest of the power connector's waterproof case on the cable



- 4) Remove around 2 cm of the external (grey) insulation from the PGP power cable $3 \times 1.5\text{mm}^2$
- 5) Remove 1 cm of insulation from each wire



- 6) Using a Phillips screwdriver, loosen the screws from the power connector for the wires, which will allow you to easily install the wires in the power connector
- 7) Connecting the wires to the power connector is done as follows:
 - a. *L is for Line (usually brown)*
 - b. *N is for Neutral (usually blue)*
 - c. *G is for Ground (usually green-yellow)*



NOTE:

The colours of the wires may vary depending on the country to which the bench is delivered

The installation is to be executed by an experienced technician

- 8) After the installation is completed according to the previous instructions, it is necessary to tighten the screws to obtain a firm position of the wires in the slots of the power connector



- 9) After having placed the wires in the power connector correctly, pull the waterproof case over the connector, and then the clamping nut that needs to be tightened by hand, while minding not to disconnect the cable from the power connector



- 10) Carefully insert the power connector into the bench leg, so that only the unplugged part of the power cable that goes from the base into the leg remains visible in the leg opening



4.2. Connecting ethernet (network) cable

NOTE:

The ethernet cable is installed in the base and connected to the bench only if a Wi-Fi module (which communicates via ethernet cable) is purchased with the bench

The installation is to be executed by an experienced electrician familiar with networking hardware

- 1) The ethernet cable is installed after the bench is attached to the base and the cable is carefully routed through the bench leg to the outer opening in the leg
- 2) After installing the bench in the base, strip, crimp and test RJ45 connector to the ethernet cable coming from the base



- 3) Inside the bench leg there is ethernet cable adapter already connected to the bench master controller. Carefully remove the clamping nut, waterproof rubber, and protective case from adapter
- 4) Place a clamping nut on the cable protruding from the base, followed by the waterproof rubber, and finally the protective case

- 5) Connect the ethernet cable coming out of the base to the available adapter connector



- 6) Put the protective case on the adapter, then carefully push the waterproof rubber into the upper part of the case
- 7) Tighten the clamping nut to make the connection complete and then carefully insert the adapter into the bench leg, so that only the part of the ethernet cable protruding from the base into the leg remains visible in the leg opening.



5. Installing the cover on the service hatch of the leg

- 1) Each leg of the Steora Classic bench has an external service hatch through which the anchor bolts are tightened and the power and/or ethernet cable is connected (additional option). The bench comes with four covers that are installed on the service hatches after the bench is installed at the final location and put into operation
- 2) After placing the bench in the base, take the service hatch cover and carefully remove the protective foil from the double-sided adhesive tape. Be careful not to touch the adhesive on the tape with your hands, because touching the tape reduces the adhesion properties
- 3) Visually check that the frame of the service hatch on which the cover rests is clean and without damage or defects. If the frame is not completely clean, wipe it with a damp cloth
- 4) Carefully place the cover on the service hatch of the leg, making sure that the cover fits evenly on the service hatch frame on all sides and aligns with the rest of the leg



6. SIM card installation (additional option)

The procedure of installing the SIM card in Steora Classic bench is performed only when a Wi-Fi module that communicates via the SIM card is purchased with the bench.

The SIM card is installed in the bench before the bench is turned on. Do not insert the SIM card into the bench if it is already turned on. In this case, read chapter 7. Intermittent and permanent bench activation.

- 1) An electronics box is attached to the bottom side of the central beam (under the bench). The SIM card cover on the box is to be removed. Unscrew the screws from the cover using the torx key included in the packaging and carefully place the cover on a clean surface where the colour of the cover will not be scratched



- 2) After removing the cover, carefully pull out the SIM card connector only a few centimetres out from the electronics box and insert the SIM card as shown in the following figure:



- 3) After having inserted the SIM card correctly, carefully place the connector back to the electronics box, then put the cover back and secure it with the screws using a torx key
- 4) Once you have put the cover back, you can proceed with turning on the bench according to the instructions in Chapter 7. Intermittent and permanent bench activation

7. Occasional and permanent bench activation

NOTE:

If the bench is equipped with a Wi-Fi module that communicates via the SIM card, please read chapters 6. SIM card installation and 8. Wi-Fi settings – APN before switching on the bench.

The Steora Classic bench allows two working modes, i.e. two modes of activation:

- I. **Permanent activation** (permanent work mode) intended for permanent activation of the bench after the bench is installed at its final location
- II. **Intermittent activation** (intermittent work mode) intended for benches used intermittently for trade fairs or presentation purposes

Depending on the method of work, the bench and the Solos platform communicate and exchange data in a different manner.

7.1. Occasional bench activation (intermittent work mode)

To set the bench in intermittent work mode, shortly press the ON/OFF button located on the electronics box attached to the bottom side of the central beam.

As soon as the bench is switched on, the ON/OFF button will light up and the bench will send an information to Solos platform that it is switched to occasional mode, which means that the bench is not monitored.

To switch off the bench shortly press the ON/OFF button, after which the bench switches off all modules.

7.2. Permanent bench activation (permanent work mode)

Permanent activation of the bench must be used when installing the bench in the base at its final location. Permanent activation is enabled by pressing and holding the ON/OFF button for 15 seconds, after which the bench will turn on and the button will flash several times. The ON/OFF button is located on the electronics box attached to the bottom side of the central beam, as is the case for intermittent activation.

After permanent activation of the bench, the ON/OFF button loses function, and it is no longer possible to use it to switch the bench on or off. If you need to turn off the bench, you need to open the MANAGE application via the Solos monitoring platform, select the bench for which you want to deactivate the permanent mode, and uncheck the "permanent work mode" field. The next time the bench is connected to Solos (usually every 30 minutes), the bench will receive deactivation information, and it will be possible to switch the bench off by shortly pressing the ON/OFF button.

8. Wi-Fi settings - APN (additional option)

If you bought a Wi-Fi module that communicates via a SIM card with the Steora Classic bench, you have to manually set up an access point name (APN) for the system to work properly. Setting up an APN requires using a device with a Wi-Fi access, such as a laptop or mobile device.

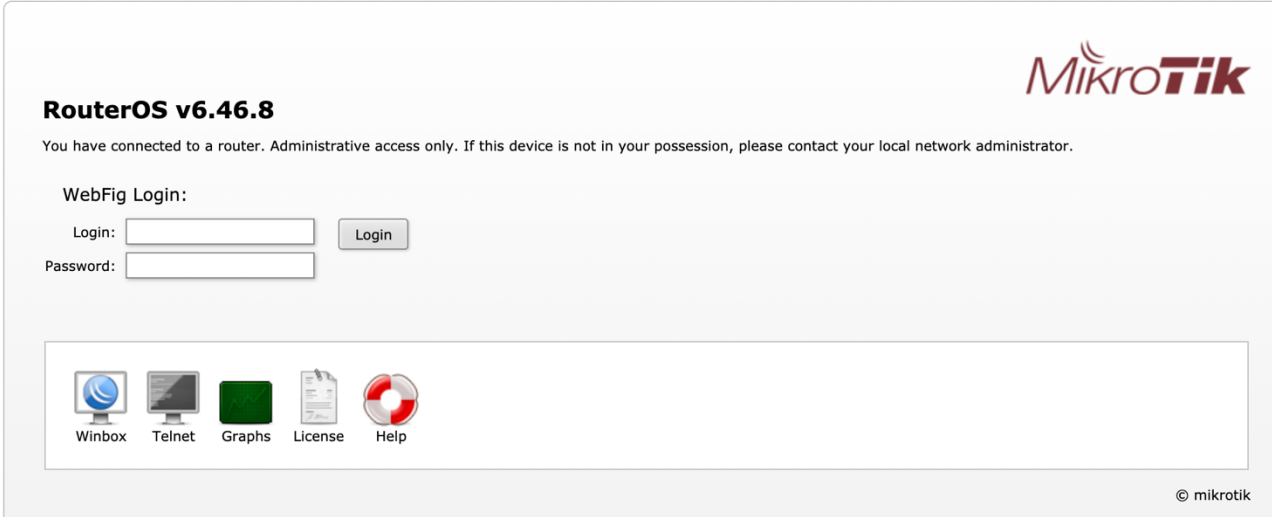
To access the APN setting, temporarily turn on the bench according to the instructions in section 7.1. Occasional bench activation (intermittent work mode) and wait approximately 1 minute for the system to activate.

- 1) Open Wi-Fi settings on your device and turn Wi-Fi on. Select the hidden network access option (depending on the device, this option is called "Add Network" or "Hidden Network" or similar)
- 2) After the input field appears, fill in the following information:
 - a. For network name (SSID) enter the serial number of the bench (serial number of the bench is on the activation key provided with other documentation, and written in the form of "AB012100009" (enter without quotation marks))
 - b. For safety choose between "WPA/WPA2 or WPA2/WPA3"
 - c. For password use "Steora123" (enter without quotation marks)
 - d. After entering data, select "Connect" or "Access" or similar

The screenshot shows a mobile device's Wi-Fi settings screen. At the top, there is a blue Wi-Fi icon and the heading "Pronađite i pristupite Wi-Fi mreži." Below the heading is the instruction "Unesite naziv i vrstu zaštite za mrežu kojoj želite pristupiti." The form contains the following fields and options:

- Naziv mreže:** A text input field containing "AB032100056".
- Zaštita:** A dropdown menu showing "Osobni WPA/WPA2".
- Lozinka:** A text input field containing "Steora123".
- Two checked checkboxes: "Prikaži lozinku" and "Zapamti ovu mrežu".
- At the bottom, there are four buttons: a question mark icon, "Prikaži mreže", "Odustani", and "Pristupi".

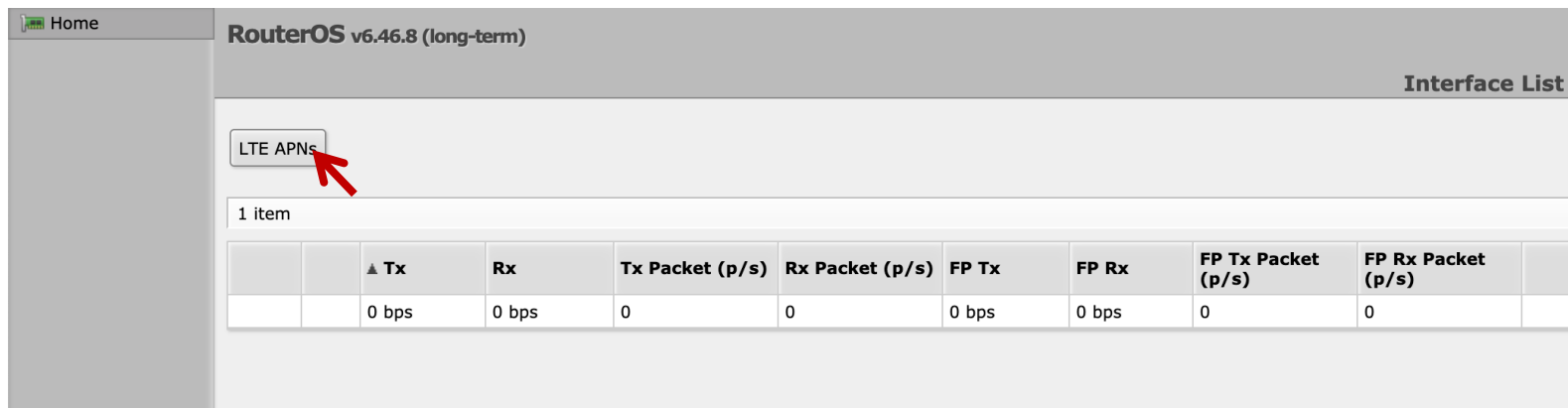
- 3) If you have entered the information from the previous step correctly, your device will connect to the Wi-Fi network. Open the Internet browser and enter **192.168.88.1** after which the home page for accessing the Wi-Fi system settings will appear.



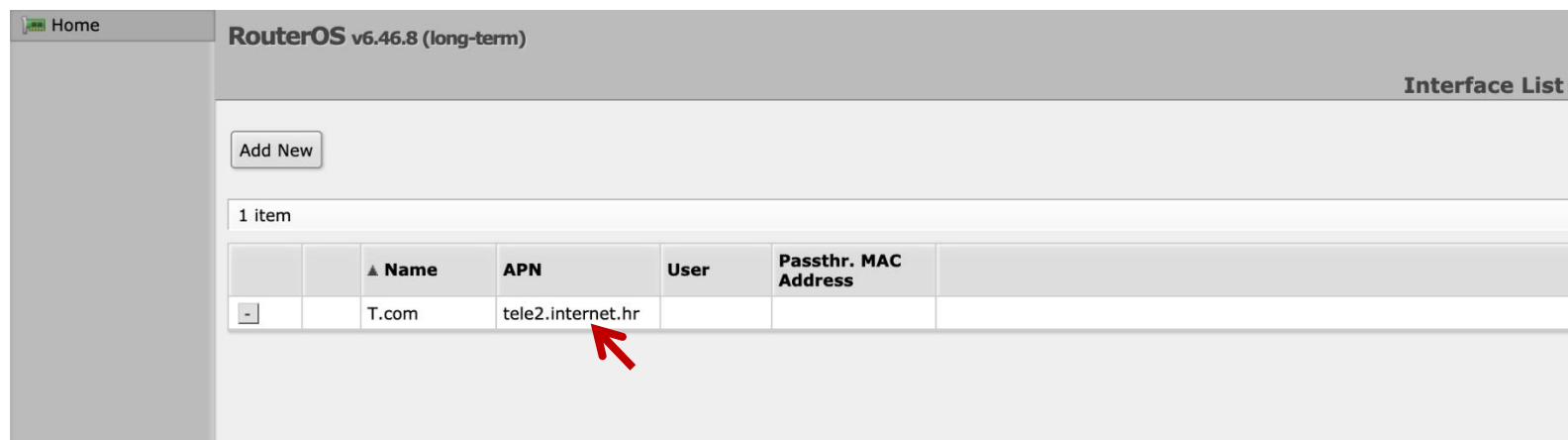
The screenshot shows the Mikrotik RouterOS v6.46.8 WebFig login interface. At the top right is the Mikrotik logo. Below it, the text reads "RouterOS v6.46.8" and "You have connected to a router. Administrative access only. If this device is not in your possession, please contact your local network administrator." The "WebFig Login:" section contains two input fields: "Login:" and "Password:", with a "Login" button to the right of the "Login:" field. Below the login fields is a horizontal menu with five icons: Winbox, Telnet, Graphs, License, and Help. The copyright notice "© mikrotik" is located at the bottom right of the page.

- 4) Enter the serial number of the bench in the Login field, then enter the activation code provided on the Activation key in the Password field. Then click the Login button

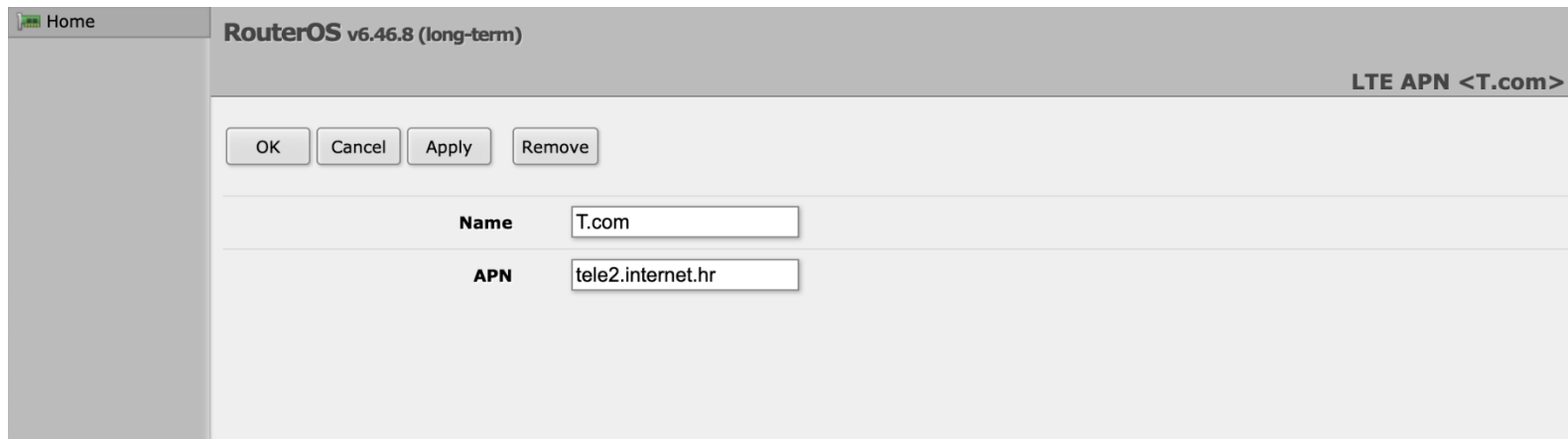
- If you have entered the correct access data, the system will redirect you to the home page for setting the APN



- Click on the "LTE APNs" button in the upper left corner of the screen, after which a new page will open.



- 7) Then click on the field in which the APN is entered (in this case, the field reads "tele2.internet.hr"). Clicking on the indicated field will open an editor to change the APN.



The screenshot shows the RouterOS v6.46.8 (long-term) LTE APN configuration interface. The title bar indicates the system is running RouterOS v6.46.8 (long-term) and the current configuration is for 'LTE APN <T.com>'. Below the title bar, there are four buttons: 'OK', 'Cancel', 'Apply', and 'Remove'. The main configuration area contains two fields: 'Name' with the value 'T.com' and 'APN' with the value 'tele2.internet.hr'.

- 8) In the APN field, delete the existing APN and enter the APN according to the instructions of your mobile operator, depending on the SIM card that you installed in the bench according to instructions in Chapter 6. Installing the SIM card. After entering the correct APN, click the "Apply" button and wait ten seconds.
- 9) After about ten seconds, according to the instructions in chapter 7.1. Occasional bench activation (intermittent work mode)- turn off the bench, then turn it on according to one of the options in Chapter 7. Occasional and permanent bench activation.

Include Ltd.

Don Frane Bulića 183a

21210 Solin

Croatia

www.include.eu