WLAN access point

Extension module for digital displays

Operating manual

1   Contact

www.siebert-group.com

GERMANY

Siebert Industrieelektronik GmbH
Siebertstrasse, D-66571 Eppelborn
P.O. Box 11 30, D-66565 Eppelborn
Phone +49 (0)6806 980-0, Fax +49 (0)6806 980-999
email: info.de@siebert-group.com

AUSTRIA

Siebert Österreich GmbH
Mooslackengasse 17, A-1190 Wien
Phone +43 (0)1 890 63 86-0, Fax +43 (0)1 890 63 86-99
email: info.at@siebert-group.com

FRANCE

Siebert France Sarl
4 rue de l'Abbé Louis Verdet, F-57200 Sarreguemines
P.O. Box 90 334, F-57203 Sarreguemines Cédex
Phone +33 (0)3 87 98 63 68, Fax +33 (0)3 87 98 63 94
email: info.fr@siebert-group.com

ITALY

Siebert Italia Srl
Via Galileo Galilei 2A, I-39100 Bolzano (BZ)
Phone +39 (0)471 053753 Fax +39 (0)471 053754
email info.it@siebert-group.com

THE NETHERLANDS

Siebert Nederland B.V.
Jadedreef 26, NL-7828 BH Emmen
Phone +31 (0)591-633444, Fax +31 (0)591-633125
email: info.nl@siebert-group.com

SWITZERALND

Siebert AG
Bützbergstrasse 2, P.O. Box 91, CH-4912 Aarwangen
Phone +41 (0)62 922 18 70, Fax +41 (0)62 922 33 37
email: info.ch@siebert-group.com

© Siebert Industrieelektronik GmbH

This operation manual has been prepared with the utmost care. However, we do not accept any liability for possible errors. We always appreciate your suggestions for improvement, corrections, comments and proposals. Please contact us: editing@siebert-group.com

Siebert®, LRD® and XC-Board® are registered trademarks of Siebert Industrieelektronik GmbH. All other product names mentioned herein may be trademarks or registered trademarks of their respective owners.

We reserve the right to make alterations to the technical data and delivery options without notice. - All rights reserved, including the rights of translation. No part of this document may in any form or by any means (print, photocopy, microfilm or any other process) be reproduced or by using electronic systems be processed, copied or distributed without our written permission.

Table of contents

Important Note

Before connecting the power supply, make sure that one of the supplied rod antennas is attached to the outside of the housing.

Connecting the power supply without the rod antenna connected can damage the remote module.

Network rights

Since the display is an active network device, administrator rights may be required for commissioning. It is therefore advisable to consult the IT administrators responsible for parameterizing of the IP addresses and WLAN settings.

Model designation

These operating instructions apply to Siebert digital displays equipped with a WLAN module with access point mode.

4   Commissioning

For commissioning, you need a PC with a WLAN interface (2.4 GHz) and an activated automatic IP address assignment (DHCP).

The screenshots are taken with Microsoft Windows 10 (17.09) and Microsoft Internet Explorer 11.

With other operating systems and Internet browsers, the screenshots may differ.

Before commissioning the WLAN, make sure that the display is connected to the power supply.

Since the WLAN module provides a separate WLAN in the 2.4 GHz range to which your computer connects during commissioning, no Ethernet cable is required for the connection to the display.

Please also note that each PC can be configured differently. If, contrary to expectations, problems should occur during setup, please contact us.

You may need software for the control of the displays. You will find this on the data carrier included in delivery or on www.siebert-group.com.

Parallel operation with an existing Ethernet network connection or with a WLAN connection via an additional WLAN interface (e.g. USB dongle) is possible since no gateway is given to the PC.
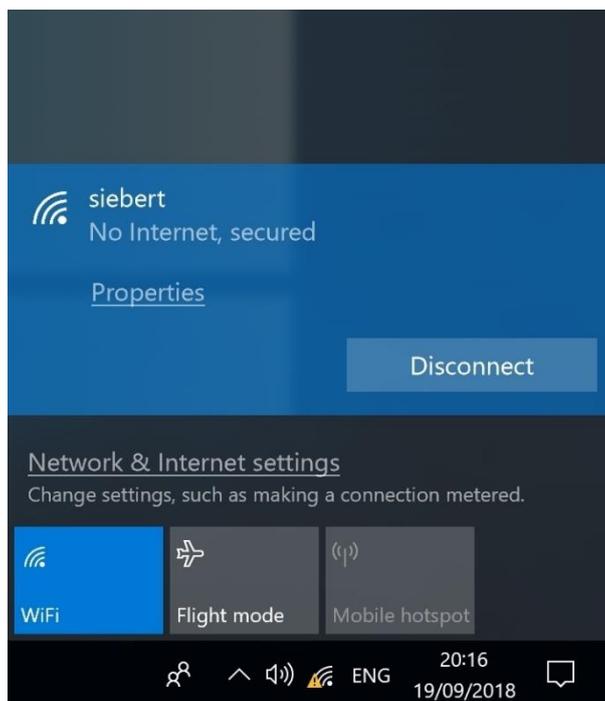
⚠ **Note**

Make sure that you have saved all necessary information (e.g. passwords for existing WLAN connections, IP address, etc.) and that they are reproducible.

During the connection with the display, an existing WLAN connection is interrupted and may have to be re-established manually.

5   WLAN module

WLAN module in closed condition

LEDs

Cover

Release

LED	Labeling	Meaning
1	PWR	power, voltage
2	ETH	LAN activity
3	USR	without, lights during initialization process
4…8	▪▪▪▪■■■	WLAN field strength (max. = LED 4...8 light up)

WLAN module with open cover

RESET button

Network
connection RJ45

CAUTION!
DO NOT POWER ON
WITHOUT ANTENNA
CONNECTED!

6   Establish the WLAN connection

The WLAN of the display has the following designation siebert-display_serial number
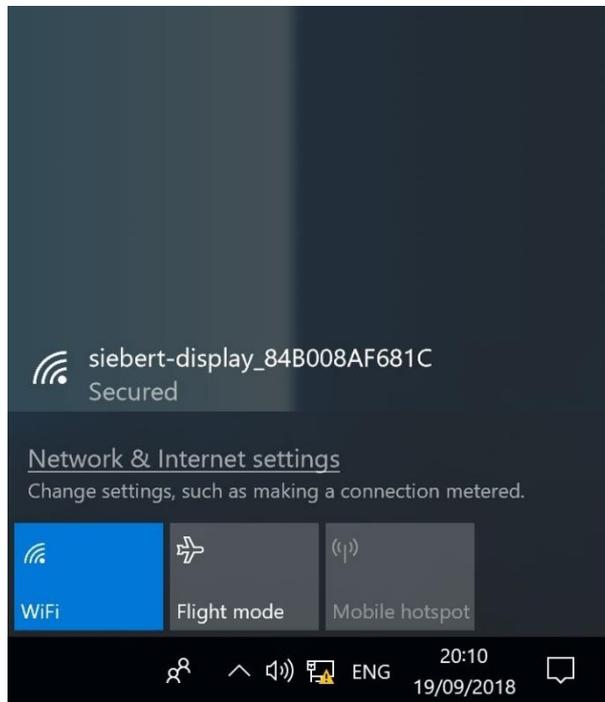
To establish a connection with the WLAN of the display, click on the Network icon in the task bar.

If the PC is within range of the WLAN of the display, it will be displayed.

If there are several displays with WLAN module within range of the PCs, these are listed. They can be distinguished by their serial number.

Click on the SSID of the WLAN of the display.
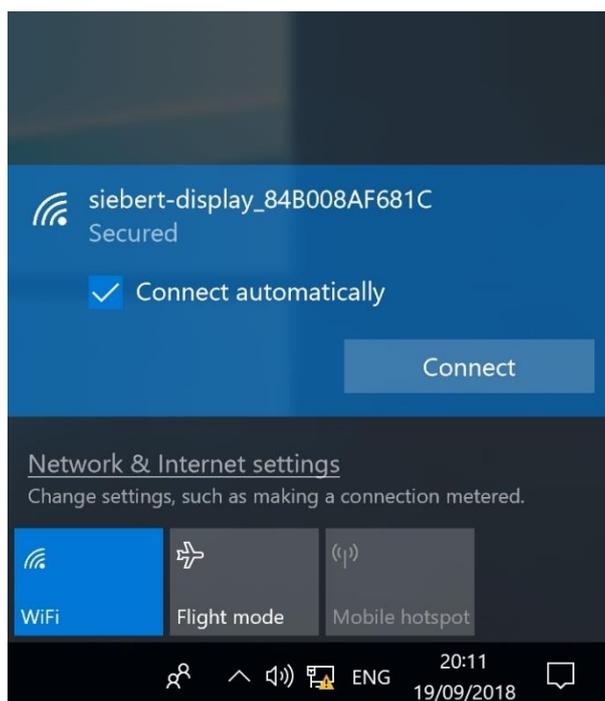
If the PC should automatically connect to the display in the future, leave the 'Automatically connect' checkbox checked and click on the 'Connect' button.

Otherwise first deactivate 'Connect automatically' and then click on the 'Connect' button.
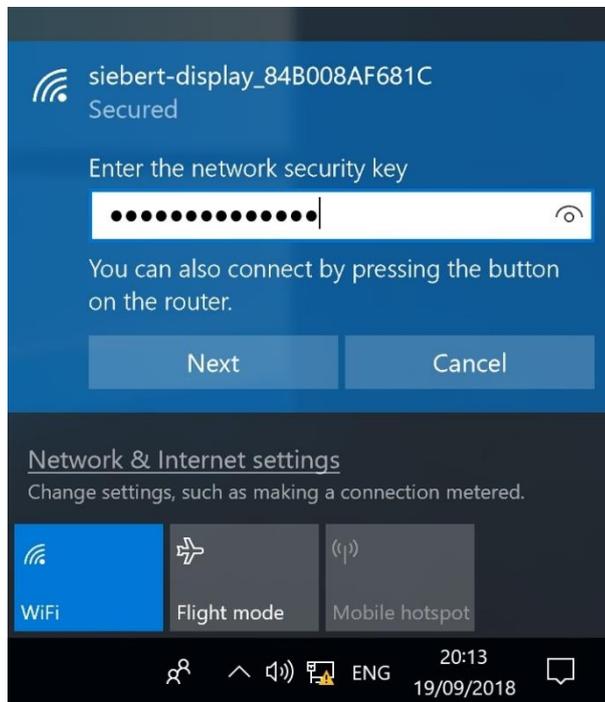
Afterwards you will be asked to enter a network security key. The default key is: siebert-display.

Enter the key in the field provided and confirm the process by clicking on 'Next'.
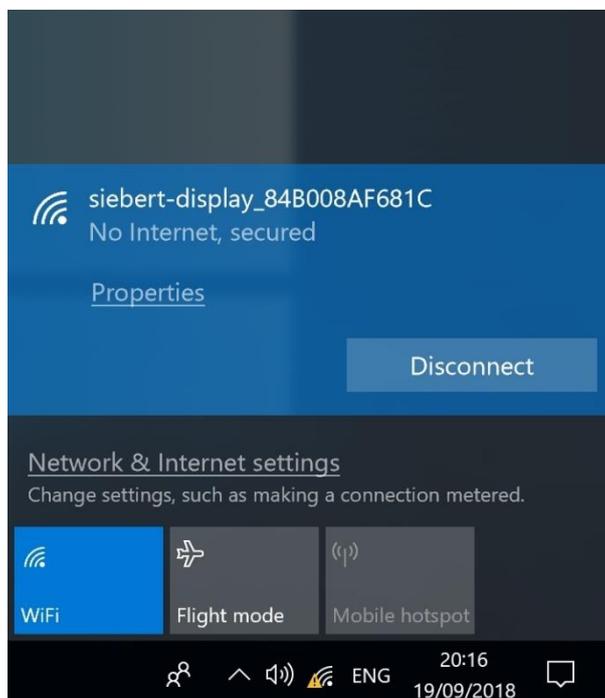
Once the network connection is established, it is displayed as the active connection.

Click on the Network icon in the task bar and then on 'Properties'.

In the window that opens, you can see the properties of the WLAN connection.

← Settings

⚙ siebert-display_84B008AF681C

Metered connection

If you have a limited data plan and want more control over data usage, make this connection a metered network. Some apps might work differently to reduce data usage when you're connected to this network.

Set as metered connection

⬤─── Off

IP settings

IP assignment: Automatic (DHCP)

Edit

Properties

SSID:	siebert-display_84B008AF681C
Protocol:	802.11g
Security type:	WPA2-Personal
Network band:	2.4 GHz
Network channel:	5
IPv6 DNS servers:	fec0:0:0:ffff::1%1
	fec0:0:0:ffff::2%1
	fec0:0:0:ffff::3%1
IPv4 address:	192.168.88.253
Manufacturer:	Ralink Technology, Corp.
Description:	802.11n USB Wireless LAN Card
Driver version:	5.1.22.0
Physical address (MAC):	E8-4E-06-3E-6F-E3

For security reasons, you should search for the IPv4 address after the entry and check whether there is an address behind it, similar to the one in the graphic. The value of the address after the last dot can be different.

Also check the point IP assignment for security reasons. If you find there the value 'Automatic (DHCP)' you can proceed to chapter 'Login to WLAN module'.

If the IP address was assigned manually on your PC, please contact your IT system administrator.

7   Settings

Connecting to the WLAN module

To connect to the WLAN module of the display, enter the following URL in the address line of the Internet browser:

http://192.168.88.1

The following window will then open for registration:
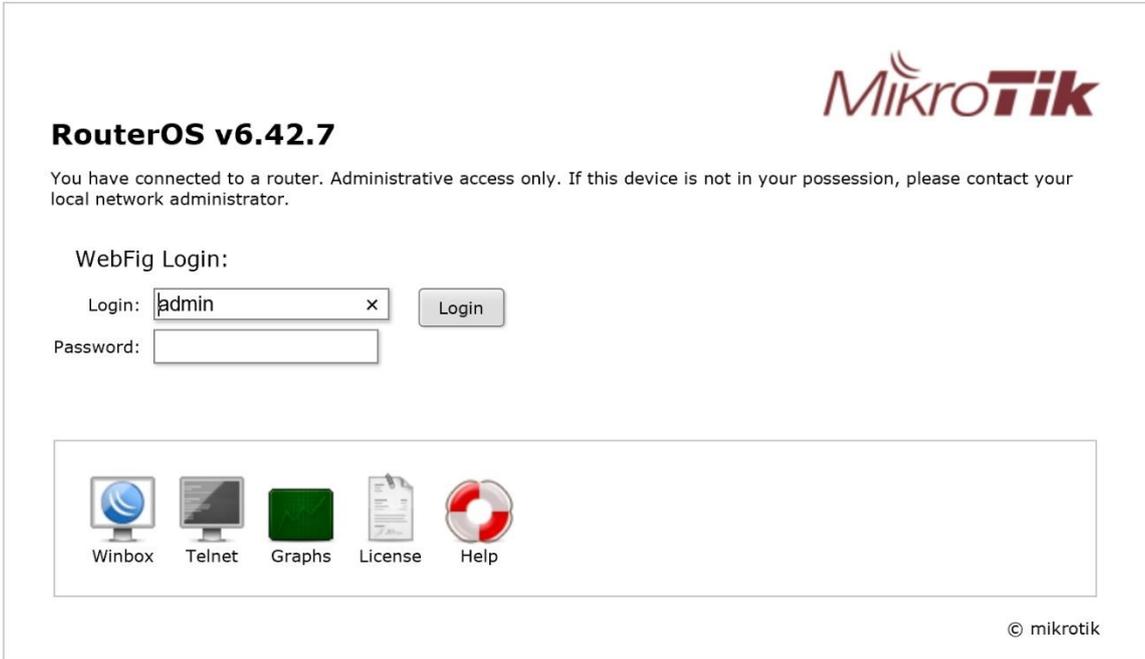
Enter the following login data in the windows 'Login' and 'Password':

After successful login, the user interface of the WLAN module opens.

On the left you see the main menu. After clicking on the desired menu item, you will see the corresponding window in the middle window area.

Now you can make changes.

Incorrect entries are indicated by red field labels (in this case an incorrect entry of the IP pool by spaces before and after the hyphen).

To unsubscribe from the WLAN module, click on the Logout button in the upper right corner.

User Password

Hint

For a higher security the change of the default password is recommended (in delivery status: siebert).
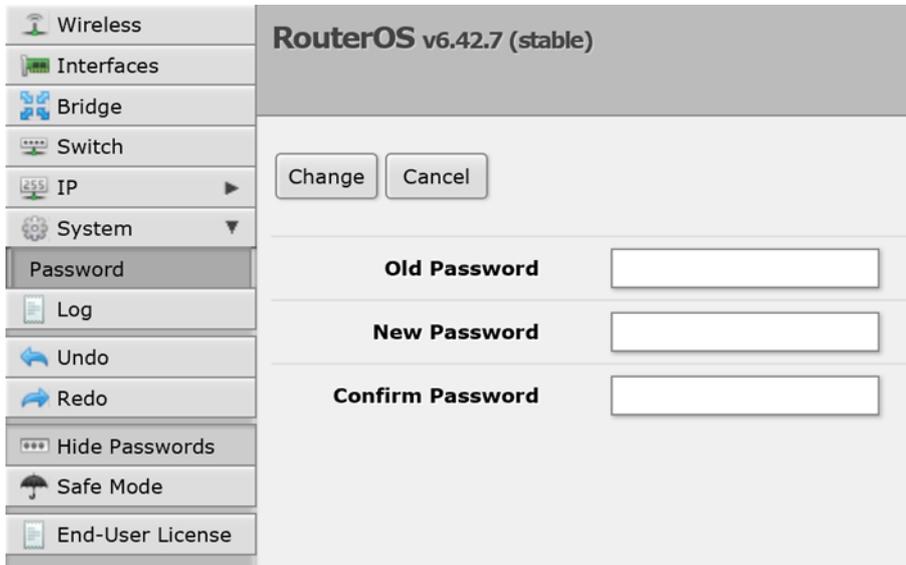
To change the user password, click on 'System' in the menu, on 'Password' and enter the current password in the 'Old Password' field.

Enter the new password in the field 'New Password' and repeat this entry in the field 'Confirm Password'.

Then click on the 'Change' button. The window closes automatically and the new password has been saved.

Note

Write down the new password and keep it safe. A lost password may require the WLAN module to be reset to its factory settings.

Network security key

> ⚠️ **Note**
>
> After changing the network security key, the connection to your PC is automatically closed. A new connection must be established and the key must be entered (see chapter Establish WLAN connection).
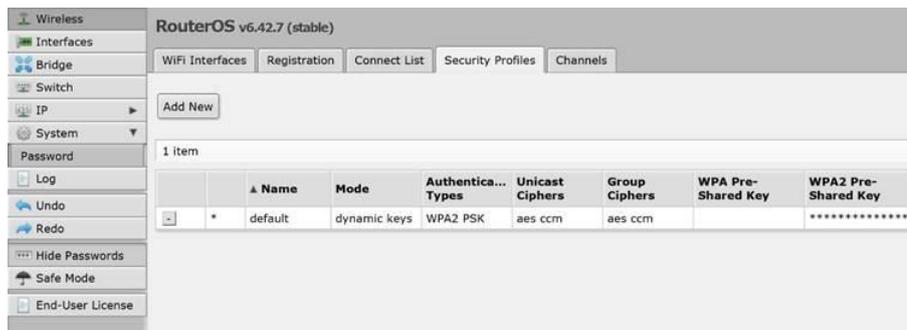
To change the network security key, click on 'Wireless' in the menu.
Select the 'Security Profiles' tab and then click on the list entry 'default'.

The following window opens:
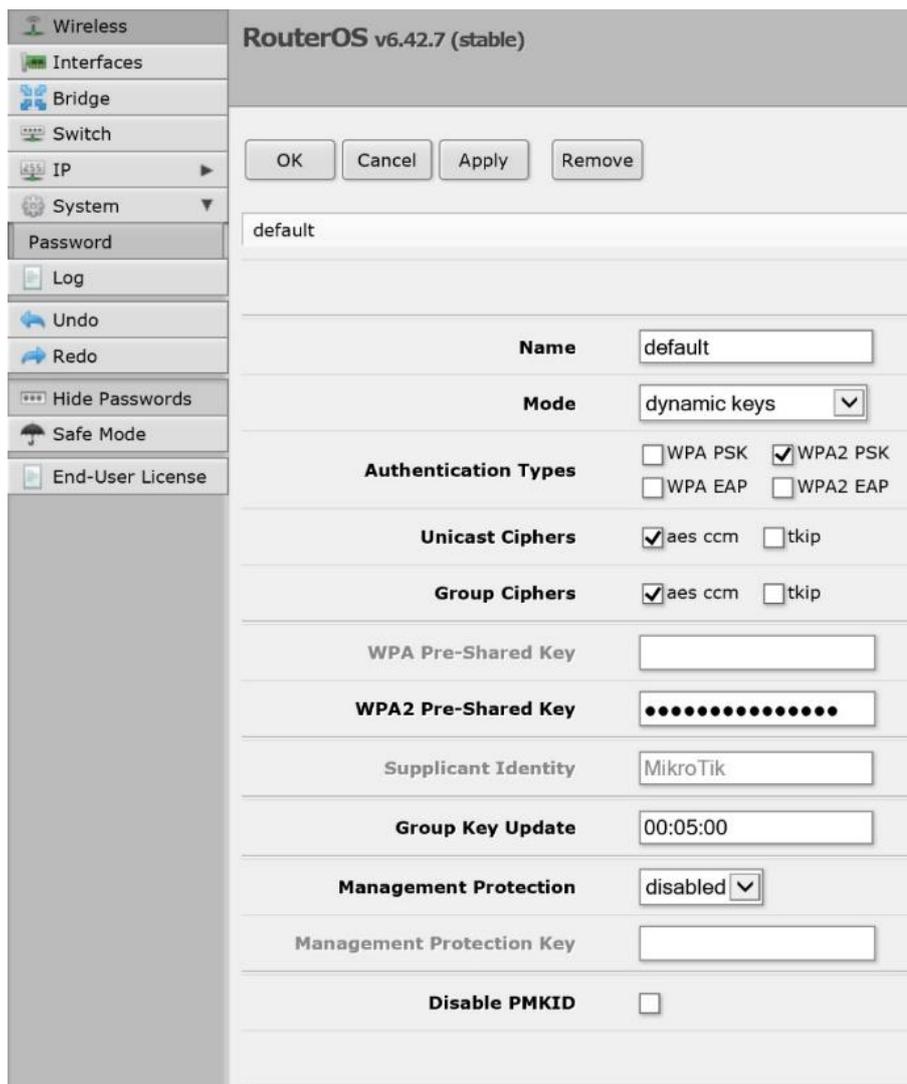
Delete the value in the field 'WPA2 Pre-Shared Key' and enter the new network security key in this field.

The key must be at least 8 characters long.

If you want the key to be visible, click on 'Hide Passwords' in the menu.

To save click on 'OK'. The window closes automatically.

The WLAN connection is now disconnected and the Internet browser session will no longer be updated. Therefore close the browser.

Afterwards you can establish a new connection with the WLAN module using the new network security key (see chapter Establish WLAN connection).

⚠️ **Note**

Write down the new network security key and keep it safe. A lost key may require the WLAN module to be reset to its factory settings.

WLAN SSID

> ⚠️ **Note**
>
> After changing the SSID, the connection to your PC is automatically closed. A connection setup via the new SSID is required again (see chapter Establish WLAN connection).
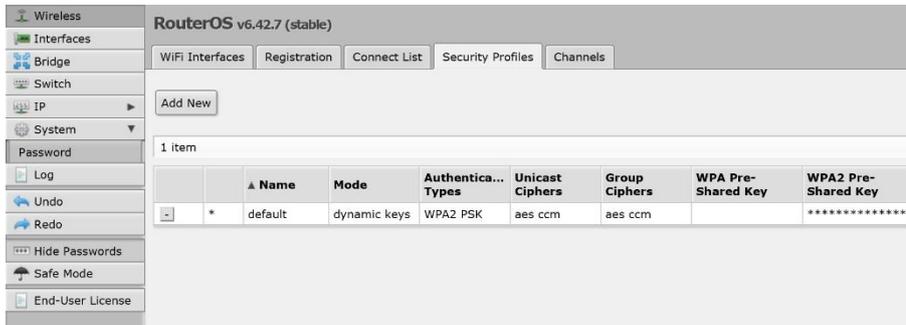
To change the SSID (Service Set Identifier), click 'Wireless' in the menu.
Select the tab 'WiFi Interfaces' and then click on the List entry 'wlan1'.
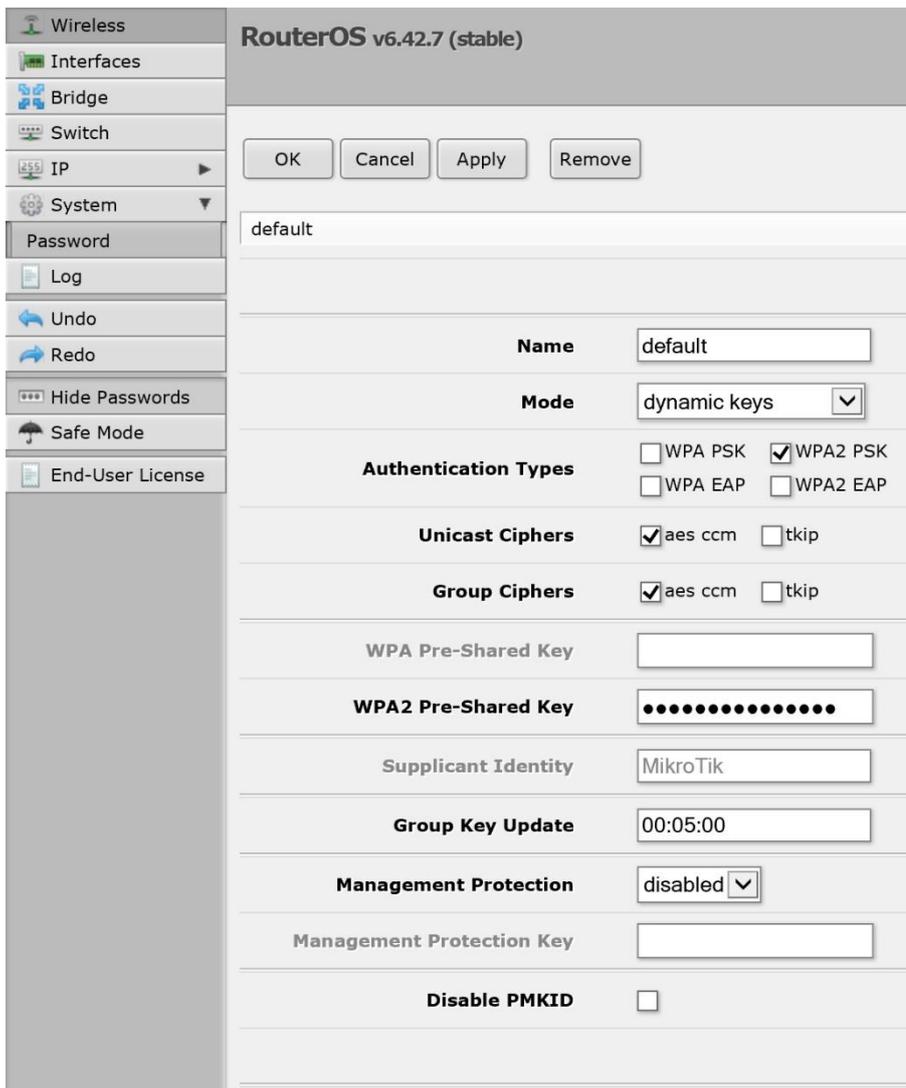
Delete the value in the field 'SSID' and enter the new SSID in this field.

To save click on 'OK. The window closes automatically.

The WLAN connection is now disconnected and the Internet browser session will no longer be updated. Therefore close the browser.

Afterwards you can establish a new connection with the WLAN module using the new SSID (see chapter Establish WLAN connection).

IP address and DHCP server

The IP address of the WLAN module and the range of IP addresses from which the DHCP server of the WLAN module assigns IP addresses can be changed via the user interface.

⚠️ **Note**

Please pay attention to the instructions given in the following example. Otherwise it may not be possible to establish a connection with the WLAN module. This requires resetting the WLAN module to factory settings.
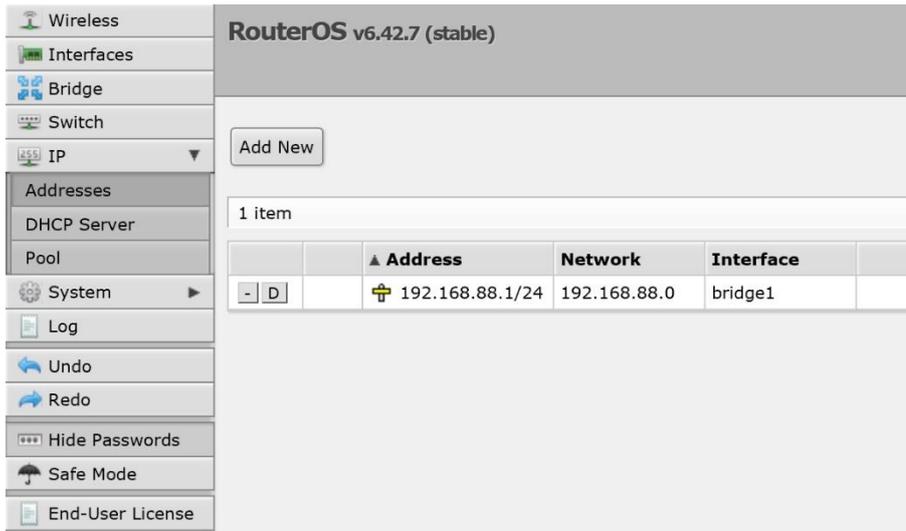
To change the IP address of the WLAN module, click on 'IP' in the menu, then on 'Addresses' and after on the button 'Add New'.

Delete the value in the field 'Address' and enter the new IP address in CIDR format in this field. Use a private IP address according to RFC1918 for this. In this example: 192.168.77.1/24

To save click on 'OK'. The window closes automatically.

In order for the WLAN module to continue to assign IP addresses, the DHCP server must be set to the corresponding address range.
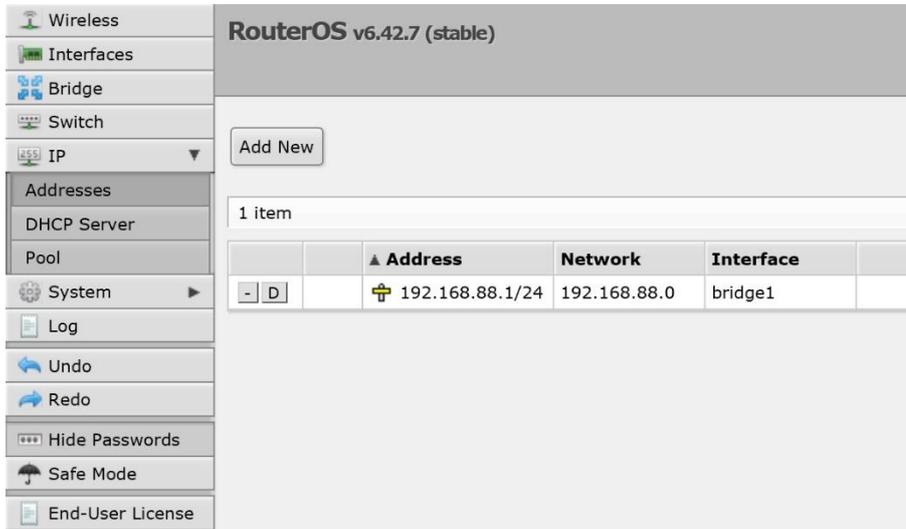
To add a new network, click on 'IP' in the menu and then on 'DHCP Server'. Choose the tab 'Networks' and then click on the button 'Add New'.
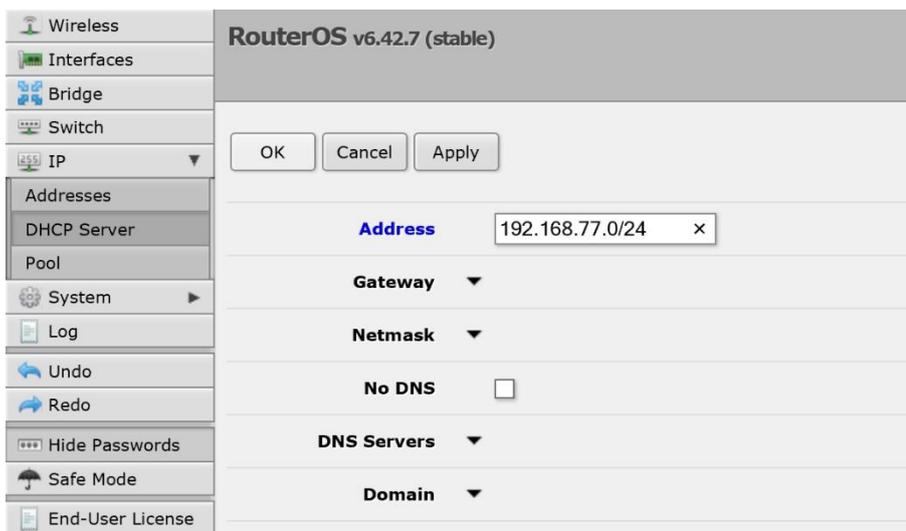
In the field 'Address' enter the new network. In this example: 192.168.77.0/24

To save click on 'OK'. The window closes automatically.
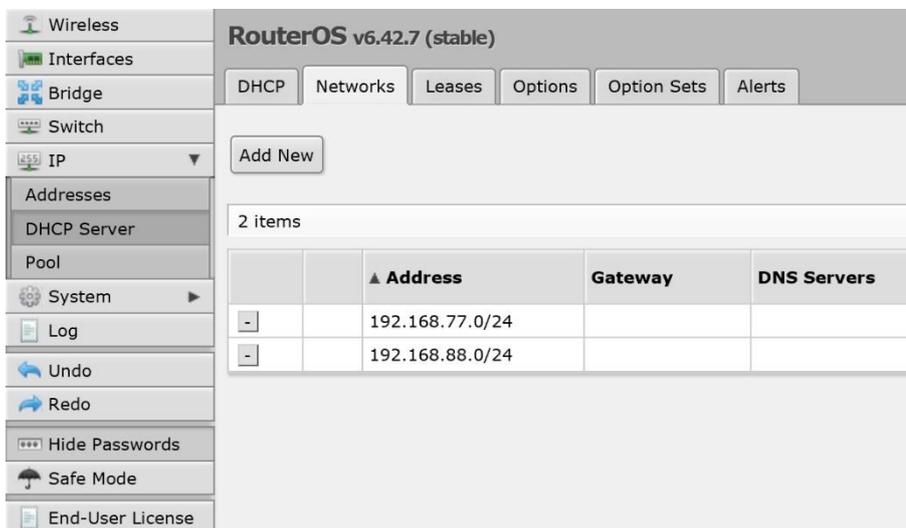
The new network is displayed in the network overview.

In the next step, the range of IP addresses from which the DHCP server assigns IP addresses must be defined correspondingly.
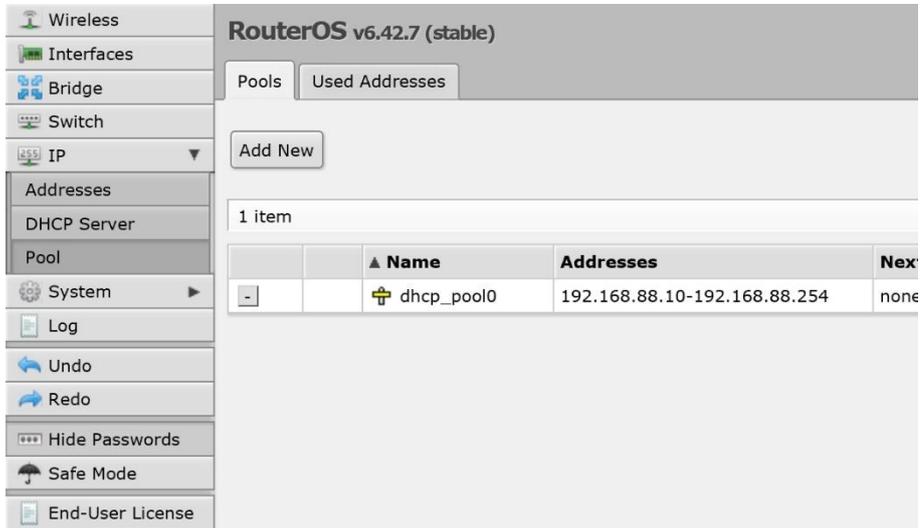
To change the range of IP addresses, click 'IP' in the menu, then on 'Pool' and after choose the list entry 'dhcp_pool0'.
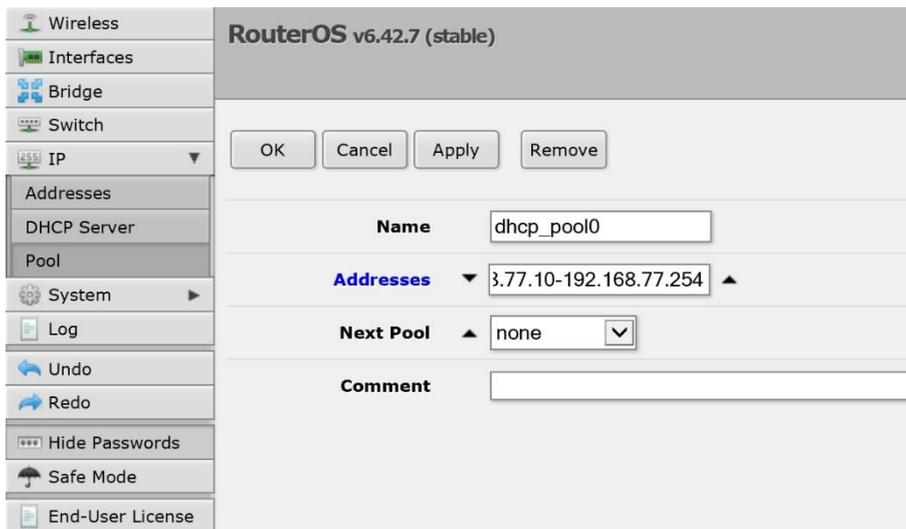
In the field 'Addresses' enter the new range of IP addresses. In this example: 192.168.77.0-192.168.77.254

Make sure that the spelling is correct and that no spaces are used.

To save click on 'OK'. The window closes automatically.
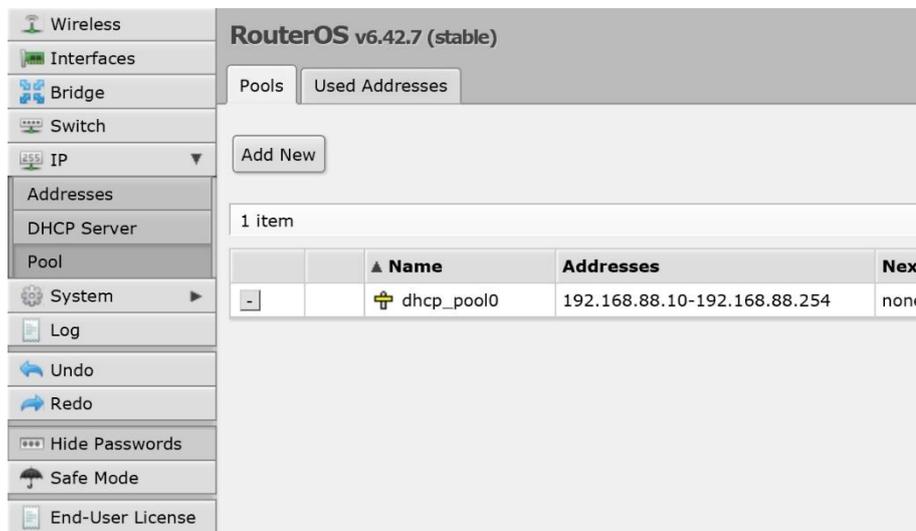
The changed IP address range is displayed in the IP address range overview.

After that end the browser session and disconnect the WLAN connection with the display. Then reconnect your PC to the display via the new IP address. In this example: 192.168.77.1
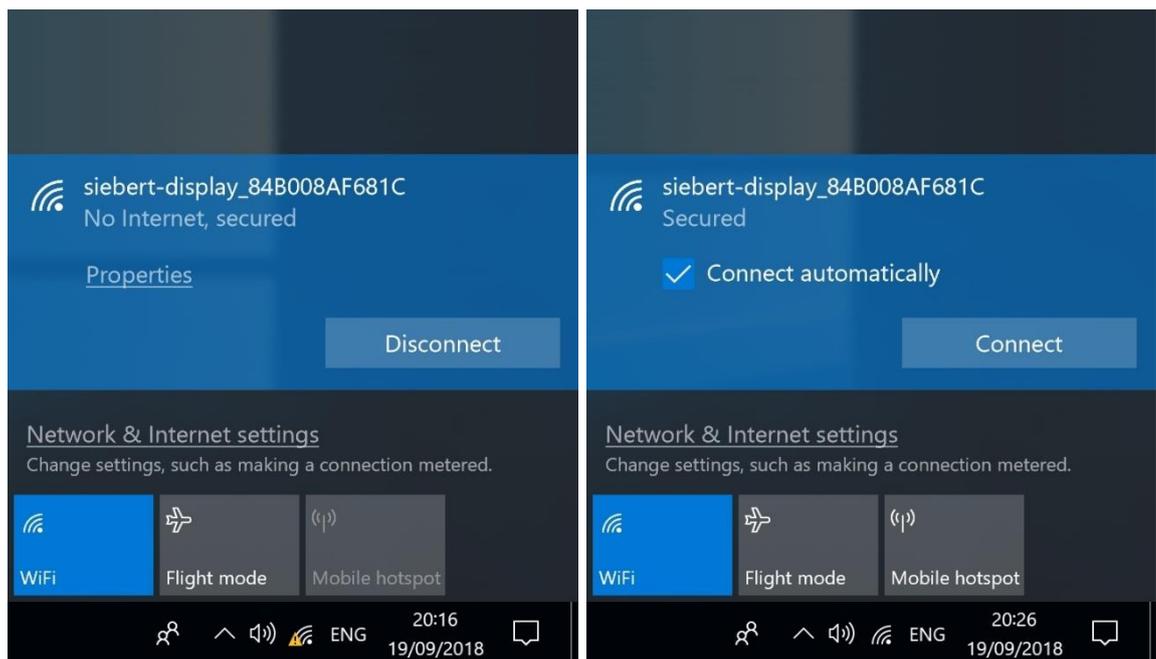
In the next step, entries in the WLAN module that are no longer required are deleted. (This is not necessary in this example because both the IP address and the network were added to the DHCP server).

Enter the new URL of the WLAN module in the address line of the Internet browser. In this example: http://192.168.77.1.

After the login window will open. Enter the login data in the 'Login' and 'Password' windows. If the login data is in the delivery state, enter the following:
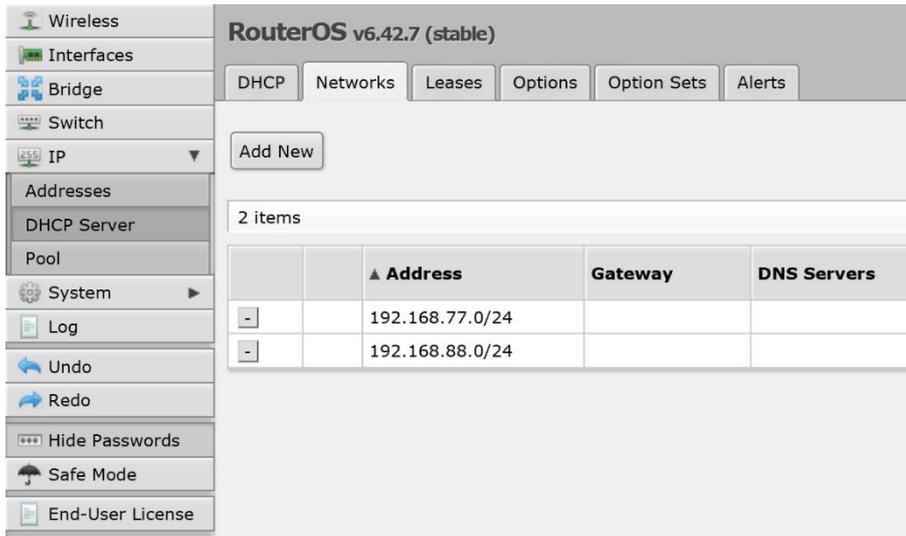
To delete unnecessary networks, click on 'IP' in the menu and after on 'DHCP Server'. Choose the tab 'Networks' and after click the delete button '–' in the line with the entry that you do not need. In this example: 192.168.88.0/24
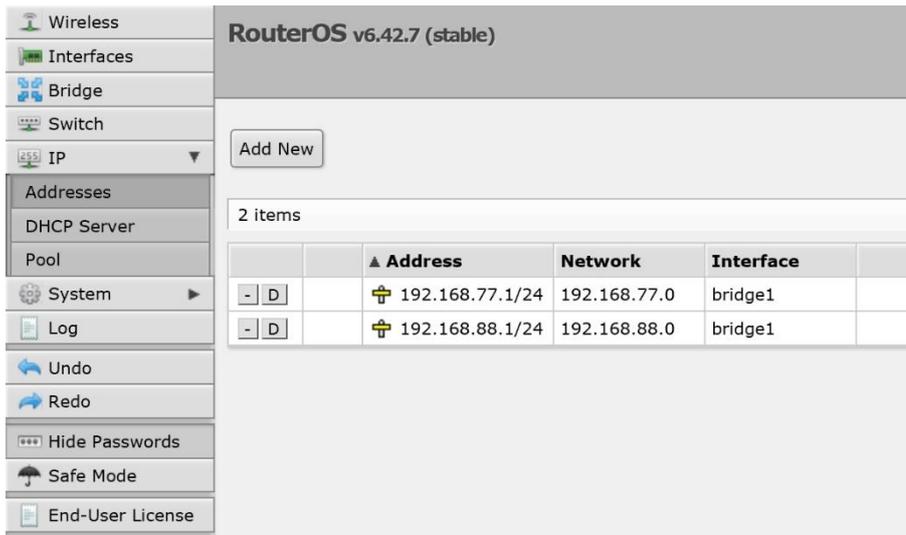
To delete the unneeded IP address of the WLAN module, click on 'IP' in the menu, then on 'Addresses' and after click the delete button '–' in the line with the entry that you do not need. In this example: 192.168.88.1/24

To ensure that the DHCP server of the WLAN module assigns all components installed in the display an IP address from the newly defined range, wait at least 10 minutes. Alternatively, you can disconnect the display from the power supply for approx. 10 seconds.

For configuration of the display see operating instructions.

8   Resetting the WLAN module to factory settings

To reset the WLAN module to factory settings, the cover of the WLAN module must be removed.

To do this, simultaneously hold down the release button and pull the cover slightly downwards.

Next, remove the network cable from the RJ45 network connector. Then hold down the RESET switch with a pointed object (e.g. bent paper clip or pen) and simultaneously plug the network cable back into the network socket.

Keep the RESET switch pressed until the LEDs 'USR' (LED 3) and the WLAN field strength (LED 4...8) are flashing.

After that the WLAN module will restart with factory settings.