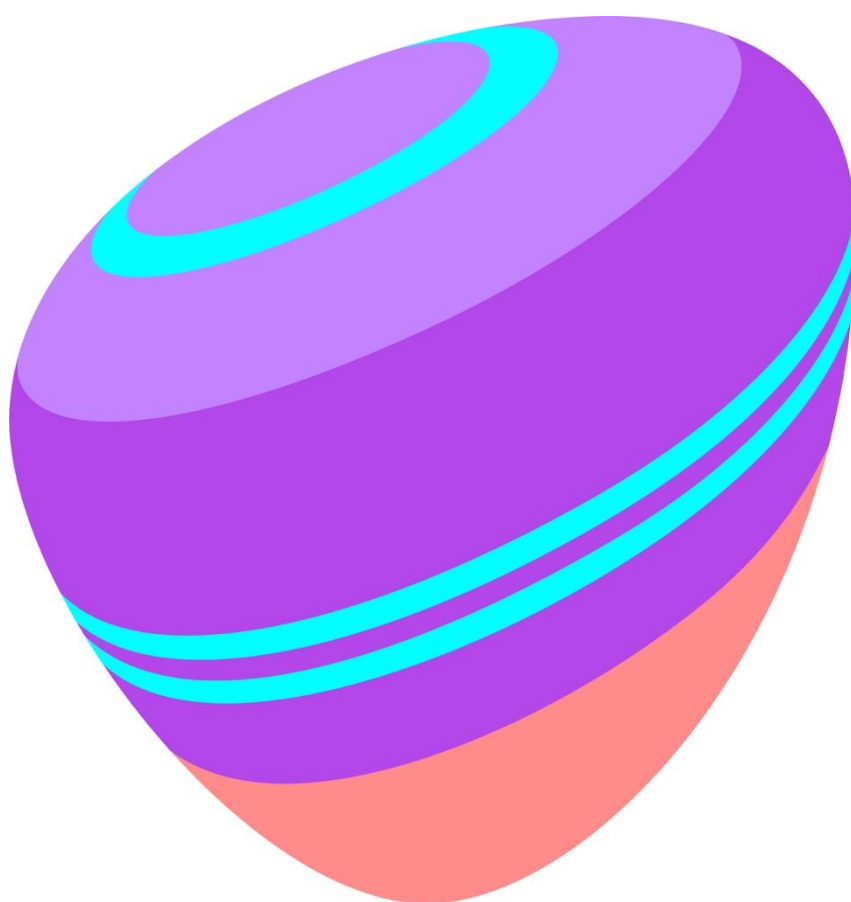


TRÅDLØST BREDBÅND

Telia F1 Router User Guide



Telia F1 Router User Guide



Dear customer,

Thank you for choosing the fast and high-quality Telia Trådløst Bredbånd. We wish you a pleasant experience and productive work!

This guide will help you to connect to the Internet and to the router for self-administration via web browser.

TERMS AND ABBREVIATIONS

IP	Internet protocol
LAN	Local Area Network - (local) computer network
OS	Operating System
RAM	Random Access Memory
SSID	Service Set Identifier - the name of the wireless network
TCP	Transmission Control Protocol
UTP	Unshielded Twisted Pair - unshielded twisted pair (Ethernet network cable)
WAN	Wide Area Network - in this case the TELIA Internet Network
WiFi	Wireless fidelity –wireless technology
WLAN	Wireless LAN is a wireless computer network
WPA	WiFi protected Access - Wi-Fi Protected Access, the latest variant of WPA3, the most common being WPA2.

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1 ROUTER

The Telia F1 Router (hereinafter referred to as the Router) is a device designed to provide Internet services.

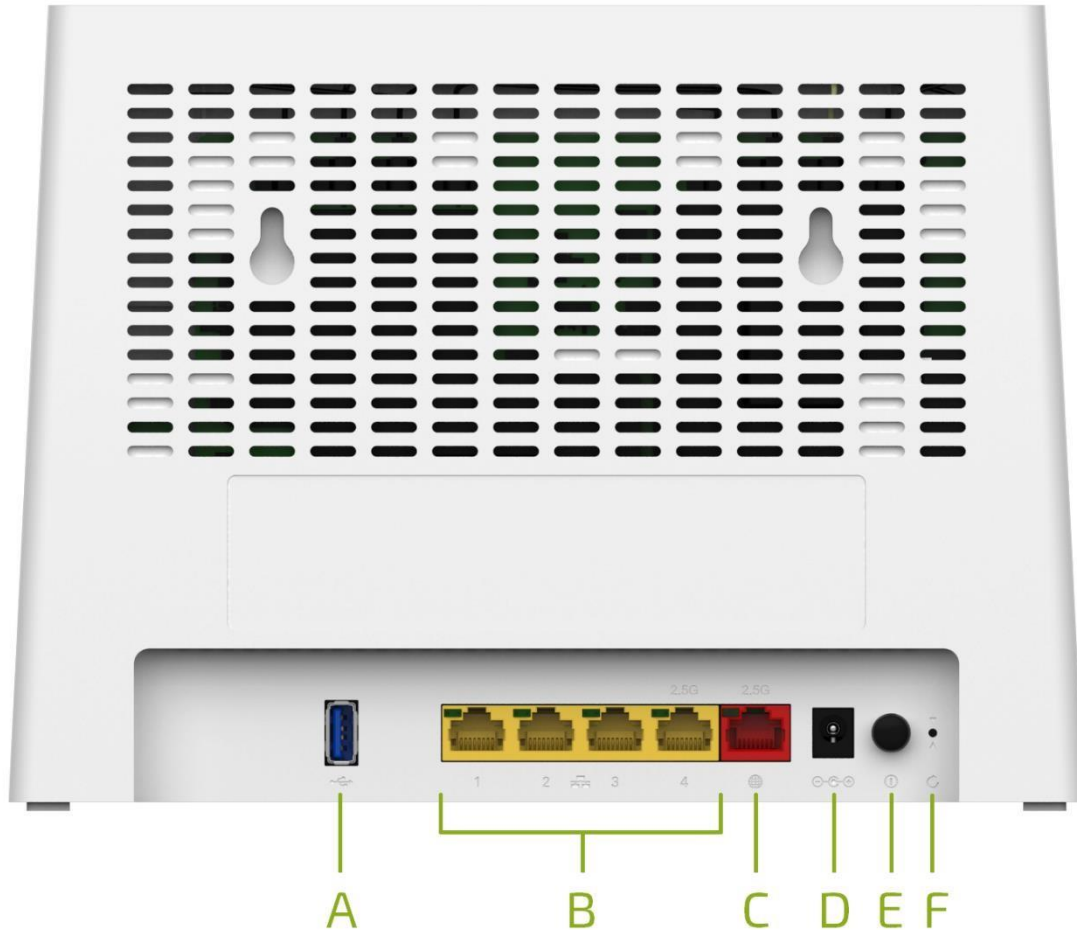


Telia F1

Features	Description
WAN	For Fixed wireless access
LAN	3x 1GE and 1x 2.5GE
USB	Not in use for Trådløst Bredbånd
IP telephony (SIP)	There is no
WiFi	2.4 GHz IEEE 802.11b / g / n / ax 4x4 5 GHz IEEE 802.11a / n / ac / ax 4x4
Functions	IPv4, DHCP server / relay / client, DNS, NAT / PAT, firewall, WiFi6
Limitations	It is not possible to configure static IP address Printer server / sharing feature is not supported.

2 EQUIPMENT PORTS AND LAMPS

2.1 Router ports



No.	Description
A	Not in use for Trådløst Bredbånd
B	1-4 (four) yellow LAN ports for PC, etc. Physical speed of ports 1-3 of 1Gb/s, 4 port physical speed up to 2.5Gb/s
C	WAN for Fixed wireless access
D	--C--+ el. adapter socket
E	ⓘ on / off button
F	Reset button to restore the factory settings

2.2 Router LEDs and buttons



No.	Description
G	Status LED (⏻)
H	Internet LED (@)
I	WiFi LED (📶)
J	WPS pairing button (🔗)
K	WiFi .button (📶)

Status LED (⏻):

Color	Condition	Meaning
Green	Solid	Power is on and there is a physical connection to the Ethernet WAN port
Orange	Solid	The router system is loading
	Blinking	The router is in software change mode
Red	Solid	System power-up test (self test) in progress
Off		The router is turned off / no power

Internet LED (@):

Color	Condition	Meaning
Green	Solid	Internet is working, no data is being sent/received.
	Blinking	The Internet is working and data is being sent/received.
Red	Solid	No internet connection
	Off	Router is off or Internet is provided in Bridge mode

WiFi LED (📶):

Color	Condition	Meaning
Green	Solid	WiFi connection is enabled, working in WPA mode, but no data is being sent/received
	Blinking	Wi-Fi is on, WPA is running, and data is being sent/received
Orange	Blinking	WPS pairing in progress
Red	Solid	WiFi is working but it is open / insecure, no data is being sent/received
	Blinking	WiFi is working but it is open / insecure, data is being sent/received
	Off	WiFi is off

Press and hold for 5 seconds to turn on (off) the WiFi connection. hold the button, release to check if the WiFi LED is on (off).

3 WIRELESS COMMUNICATION

The device is provided to customers with a fully configured and securely encrypted wireless port. The wireless channel is protected by a WPA-WPA2 password, which you can find by reading the sticker on the body of the device:

- Wifi-name- the name of your home wireless network.
- Wifi password- password to connect to your home wireless network.
- Wifi QR code- connecting a smartphone (or tablet) to a wireless connection by scanning a QR code.



The router has two wireless access points:

The 5 GHz access point provides extremely high transmission speeds, is less sensitive to interference, and allows IEEE 802.11a/n/ac/ax wireless devices to be connected.

The 2.4 GHz access point allows you to connect IEEE 802.11b/g/n/ax wireless devices. Use this access point for wireless devices that do not support 5 GHz.

NOTE The wireless connection can be turned on and off with the WiFi button on the front of the router (📶). Pressing and holding the button for 5 sec. turn off the wireless connection by repeatedly holding for 5 sec. you will reconnect.

3.1 Connect to WiFi with QR code

Wifi QR code- you can scan it on your smartphone (or tablet) with the built-in QR code reader in the WiFi connection area. This feature only works on Android devices.

To use wireless, make sure your computer has a wireless adapter installed and turned on (most laptops have built-in wireless adapters). If you do not have such an adapter in your computer, you will need to purchase and install it before using the wireless connection. For instructions on installing and configuring the wireless adapter, see the instructions for the adapter you purchased.

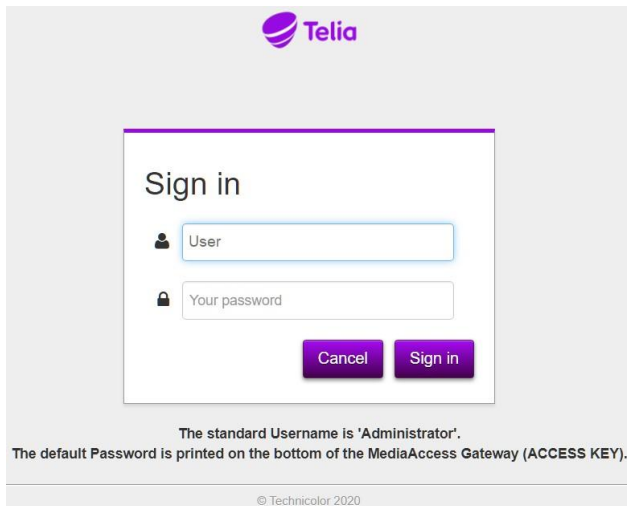
Note. For more information on wireless speeds and factors, see Appendix 2, "Factors Affecting WiFi Speed".

4 CONFIGURE THE ROUTER USING A BROWSER

If you want, you can change the router settings (for example, the wireless settings). Follow these steps:

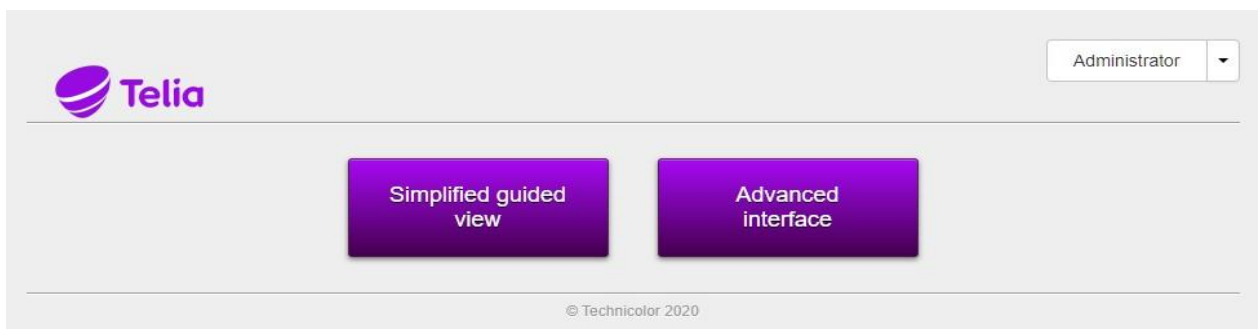
- 1 Launch your web browser and go to enter the address <http://192.168.1.1> and press the Enter key. The router's WEB interface opens.
- 2 Leave in the first box **User**, and enter the password in the second and click **Sign In**. The router will check your account and reload the page.

Note: The login password is written on the back of the router's label as the "Web admin password."



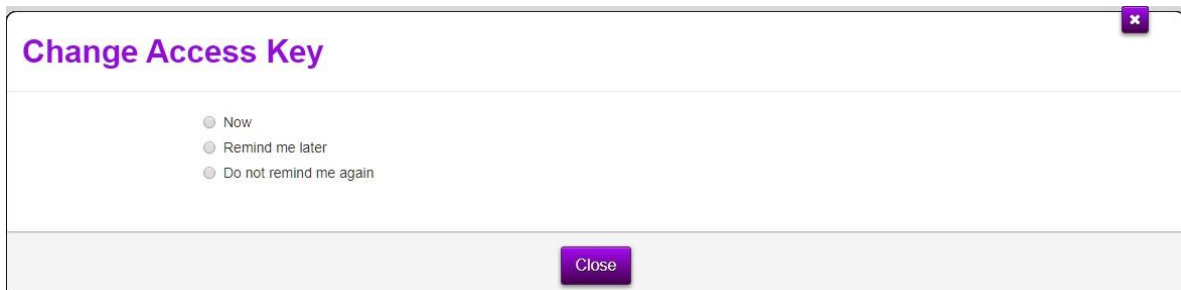
3 You can now change the settings to suit your needs.

- When connected, the initial WEB page of the router will open.



Selecting the Advanced interface gives you more control.

When connecting for the first time, the following options will be offered:



- If you want to change the WEB admin password now, select "Now".
- If you want to defer changing your password to a later time, select "Remind me later";
- If you do not want to change your password and do not want reminders, select "Do not remind me again".

Note: The factory password (Web admin password) is unique to each device and is not displayed elsewhere on the router sticker, so the password cannot be changed.

The screenshot displays the Telia router's web interface with a grid of configuration cards. The cards are as follows:

- System Info:** Version Damson (19.4)
- Broadband:** Ethernet connected
- Internet Access:** DHCP on, WAN IP is 78.62.210.209 and netmask is 255.255.252.0, IPv6 Connecting
- Wireless:** Telia-494020(2.4 GHz & 5 GHz), Guest-494020(2.4 GHz & 5 ...)
- Local Network:** DHCP enabled, Gateway IP is 192.168.1.1 and netmask is 255.255.255.0, IPv6 Disabled
- Devices:** 2 Ethernet devices connected, 1 Wi-Fi device connected
- WAN Services:** 1 port forwarding rule is defined, 0 UPnP rules are active
- Firewall:** Firewall level: medium
- Diagnostics:** (Icon of a globe with a checkmark)
- Sharing:** Samba Filesharing disabled, DLNA disabled
- Parental Controls:** Site blocking disabled, 0 site blocking rules are defined, Access control enabled, 0 TOD rules are created
- VPN Server:** VPN server disabled, 0 clients are connected
- DMZ:** DMZ is disabled
- ETH Linespeed:** LAN 1 LINE SPEED auto, LAN 2 LINE SPEED auto, LAN 3 LINE SPEED auto, LAN 4 LINE SPEED auto, WAN LINE SPEED auto

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In the initial window we see the following cards:

- **System Info-** provides information about the router (Global Information), system date / time (Time Management), router administration tools - Restart / Reset / Semi-Reset (Configuration)
- **Broadband-** the current connection status is displayed
- **Internet Access-** provides information about the received Internet settings, its status and the possibility to update the DHCP IP address (Release and Renew)
- **Wireless-** provides wireless connection information and the ability to change settings: network name (SSID), WiFi password and many other connection settings, as well as enable / disable Guest WiFi

- **Local Network**- Possibility to change lan and guest configuration: IP address / subnet and shared IP address ranges. If necessary, disable the DHCP server. Static IP-MAC address associations (Add new static lease) can also be described
- **Devices** - provides a list of all devices connected to the local network
- **WAN Services** – Not in use for Trådløst Bredbånd
- **Firewall** - there are options: change the firewall level, enable / disable ping
- **Diagnostics** - ability to perform router and network diagnostics
- **Sharing** – Not in use for Trådløst Bredbånd
- **Parental Controls** - Ability to block / allow WEB pages (Parental Control), restrict LAN devices' access to the Internet on certain days and hours of the week in 15 minute increments (Access Control)
- **VPN Server** – Not in use for Trådløst bredbånd
- **DMZ** – Not in use for Trådløst Bredbånd
- **ETH Linespeed** - to control the physical speed of WAN and LAN ports (Auto / 100 Mb/s)

5 RESTORE FACTORY SETTINGS

This feature is on the System Info tab in the Configuration section.



This function will reset all configuration except user settings.

6 CHANGE WIRELESS SETTINGS

Note. If you were able to connect successfully over the wireless connection and the connection is working properly, we recommend that you do not change the settings. Settings should only be changed if necessary.

Click the Wireless tab to view and / or change WiFi settings

On the left side of the window, select the area you want to view / change; In the configuration window you can control:

- Radio
- AP
- WPS



In the radio section you can view a number of parameters, some of which you can change:

- disable / enable 2.4 GHz or 5 GHz radio module (Enable: ON / OFF)
- Choose what standards the radio module will work with (Standard)

2.4GHz has two choices of 802.11b/g/n or 802.11b/g/n/ax

5Ghz also has 2 options for 802.11a/n/ac or 802.11a/n/ac/ax

Wireless

The screenshot shows the 'Radio' configuration page. At the top, there are three tabs: 'Radio', 'AP', and 'WPS'. Under the 'Radio' tab, there are two radio buttons for 'RADIO'S': '2.4 GHz' and '5 GHz', with '5 GHz' selected. To the right, there are several settings: 'Enabled' is a toggle switch set to 'ON'; 'Frequency band' is '5GHz'; 'Antenna' is '4x4'; 'MAC address' is 'd6:35:1d:49:40:28'; 'Standard' is a dropdown menu set to '802.11a/n/ac/ax'; 'Speed' is '173.3Mbps'; 'Region' is 'EU'; and 'Current channel' is 'auto'.

In the AP section you can:

- separate frequencies / networks (Split: ON)
- turn the wireless connection on and off (State: ON / OFF)
- change wireless network name (SSID name)
- change the security level (Security Mode: WPA2-PSK / WPA2-WPA3-PSK). WPA3 is more secure, but older WiFi devices don't work with WPA3, leaving WPA2 compliant.
- change password - (Wireless Password)

Note. We suggest choosing a password of at least 12 characters, a combination of uppercase and lowercase letters and numbers, and it is also advisable to use other characters (@, #, \$, %, ^, & etc.) that are difficult for others to guess. This will allow you to have a sufficiently secure network.

If you have changed the SSID and / or WiFi password, you can also generate a QR code here, which will make it easier for you to connect to WiFi with Android devices (**Generate QRCode**).

Wireless

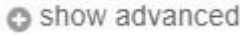
hide advanced

The screenshot shows the 'AP' configuration page. At the top, there are three tabs: 'Radio', 'AP', and 'WPS'. Under the 'AP' tab, there are two radio buttons for 'NETWORKS': 'Home' and 'Guest', with 'Home' selected. To the right, there are several settings: 'Steering Enabled' is a toggle switch set to 'ON'; '2.4 GHz and 5 GHz' has a 'Split' toggle switch set to 'OFF'. Below this, there are three input fields: 'State' is a toggle switch set to 'ON'; 'SSID' is 'Telia-494020'; 'Security Mode' is a dropdown menu set to 'WPA2-PSK'; 'Wireless Password' is 'Yw6RTydTHY6Mp98f'. Below these is the 'Access Control List' section with an 'ACL mode' dropdown menu set to 'Disabled'. At the bottom, there is a 'QR Code' section with a 'Generate QRCode' button.

In the WPS section you can:

initiate WPS pairing by pressing the button



- If you want to entertain your guests via Wi-Fi but do not want their WiFi devices to access your LAN, activate the Guest access point:
 - a. in the AP section, select Guest under Home
 - b. then click at the top / right of the window 
 - c. **State** change to ON
 - d. if you want to change the network name (SSID) and / or password
 - e. and, by generating a QR code right here, you will be able to "feed" the guest on the Internet.
 - f. Remember to save the configuration by clicking the Save button.

7 LAN IP / SUBNET CHANGE, DHCP SERVER MANAGEMENT, IP RESERVATION

In the main menu, click on the name Local Network. In the additional window that will appear, you will be able to change and configure the following functions:

7.1 Disabling the DHCP Server

The server can be turned off at DHCP Settings by changing the DHCP Server ON => OFF.

7.2 Changing the LAN subnet

To change the internal network subnet (for example, to 192.168.0.x), you need to do the following:

- In the Local Device IPv4 address field, enter the required device IP address (for example, 192.168.0.1).

Note. If you change the IP address of the Router (to eg 192.168.0.1), you will lose control of the WEB. To continue managing / configuring the Router, you must log in with a new IP address (e.g. <http://192.168.0.1>), and update the connection to the Router so that the computer obtains an IP address from the subnet again.

If you have disabled the local DHCP server, you must configure your network connection with a static IP address. If the subnet remains unchanged (192.168.1.x), configure the network adapter's IP address to 192.168.1.10 (or another free IP address that does not conflict with the IP address of the client and / or Router). If you have changed the LAN subnet (for example, to 192.168.0.x), configure the IP address to 192.168.0.10 (or another free IP address).

- If you want to change the modes of IP addresses shared by computers, click show advanced. On the DHCP Pool LAN, you can enter the start address and end address of the IP field and change the Lease time of the dynamic IP address as required.
- After entering the desired settings, save the changes with the Save button.


Local Network

The screenshot shows the 'Local Network' configuration interface. On the left, under 'LAN INTERFACES', the 'lan' interface is selected. The main area is divided into sections: 'Global Information' with 'Local Device IPv4 address' set to '192.168.0.1' and 'IPv6 state' set to 'OFF'; 'DHCP Settings' with 'DHCP Server' set to 'ON'; and 'Static leases' with columns for 'Hostname' and 'MAC address', and an 'Add new static lease' button. At the bottom right are 'Cancel' and 'Save' buttons.

7.3 Static IP address binding on a LAN DHCP server

- *Static leases* area, click the Add new static lease button. Additional configuration fields for the static IP address will then appear.
- Enter: the name of the equipment - Hostname; physical address of the equipment - MAC address; desired IP address - IP.

Note. If you do not know the MAC address of the device, and the device is connected during configuration, then the MAC address field makes it easy to find it by name, currently assigned IP address, or by part of the MAC address.

- After entering the information in the appropriate fields, save the configuration with the button 

This screenshot shows the 'Static leases' section of the configuration page. The 'Global Information' and 'DHCP Settings' sections are visible at the top. In the 'Static leases' section, there is a table with columns for 'Hostname', 'MAC address', and 'IP'. A new static lease is being added with the following values: Hostname: 'Host132', MAC address: '40:d3:ae:99:b6:a4', and IP: '192.168.11.132'. An 'Add new static lease' button is located below the table.

8 COMPUTERS CONNECTED TO THE INTERNAL NETWORK

In the main window, click the name Devices. An additional window will open showing the information of all devices connected to your network in two sections: Global Information or Devices List

The screenshot shows a 'Devices' window with a 'refresh data' button. It has two tabs: 'Global Information' and 'Devices List'. The 'Global Information' tab is active, showing three categories: '1 WIFI', '2 Network', and '0 USB'. Under 'WIFI', there are sub-items for 'Wifi-2.4GHz' and 'Wifi-5GHz', with 'MINMNKXM2' listed below. Under 'Network', there are two dropdown menus showing 'Unknown-00:...' and 'Unknown-fc.d...'. The 'Devices List' tab is also visible, showing a table of connected devices.

Status	Device Type	Hostname	IPv4	MAC Address	Interface	Connected Time	Expires In
●		MINMNKXM2	192.168.1.224	F0:d5:bf:b5:b3:f0	wireless - 5GHz - lan - Telia-494020	1 hour 1 minute 29 seconds	55 minutes
●		Unknown-00:02:9b:c2:9a:1a	192.168.1.185	00:02:9b:c2:9a:1a	Ethernet Port3	2 days 0 hours 54 minutes 24 seconds	54 minutes
●		Unknown-fc:d5:d9:b5:61:56	192.168.1.222	Fc:d5:d9:b5:61:56	Ethernet Port4	2 days 0 hours 36 minutes 25 seconds	54 minutes

The grouped information is more visual, but let's use a list for more detailed data. If something doesn't fit in the window, let's scroll for it.

9 PORT FORWARD CONFIGURATION

This function is not supported on Trådløst Bredbånd!

10 UPNP CONFIGURATION

This function is not supported on Trådløst Bredbånd?

Note. Telia F1 in factory configuration UPnP and NAT-PMP settings are off

11 ROUTER AND NETWORK DIAGNOSTICS

- In the main window, click on the name Diagnostics
- In the additional window that appears, you will find three sections:
 - *Ping & Traceroute*- you will be able to take Ping and Traceroute tests
 - *Connection*- automatic communication check is performed
 - *Network*- statistics for each slot are displayed
 - *Igmproxy*- IP multicast information is displayed

11.1 DLNA on / off

To turn off the DLNA feature, find DLNA Enabled on the Sharing tab

DLNA Enabled  ON


and change the status from ON to OFF.

Conversely, to enable the DLNA function, change DLNA Enabled from OFF to ON.

12 PARENTAL CONTROLS

To restrict Internet access to LAN devices, go to the Parental Controls tab.

In this card you can:

- Block unwanted websites.
 - a. *Parental Control*, In the Site Blocking area, the page blocking function must be enabled, i.e. change the parameter Enabled from OFF to ON;
 - b. Then you need to enter the sites you want to block:
 - i. Click the Add New Site button
 - ii. enter the site
 - iii. *Device* select Single to block the site for one LAN device, then select the MAC Address of that device from the list, leave All to block the site for all LAN devices
 - iv. After entering the data, press the button 

Note. If blocking webpages didn't work for your computer or other device, try disconnecting it and reconnecting it to your home or network wired or wireless connection.

- Restrict Internet access to LAN devices on certain days / hours of the week.

- a. *Time of Day Access Control* In the area, click the Add New Rule button

Time of day access control

- b. Configure the limited days and hours of the week for the selected LAN device (MAC address), select Block in Mode

Enabled

MAC address

Mode

Start Time

Stop Time

The Gateway will block/allow all the time if none of the days are selected

Day of week Mon. Tue. Wed. Thu. Fri. Sat. Sun.

- c. Save with the Save button.

We will get the following result:

Time of day access control

Status	Hostname	Start Time	Stop Time	Mode	Day of week	
	Galaxy-A5-2017	14:00	19:45	block	<input checked="" type="checkbox"/> Mon. <input checked="" type="checkbox"/> Tue. <input checked="" type="checkbox"/> Wed. <input checked="" type="checkbox"/> Thu. <input checked="" type="checkbox"/> Fri. <input type="checkbox"/> Sat. <input type="checkbox"/> Sun.	