INSIDE Connect

Installation instructions

Swegon

1. Mount and use

1.1 First use

Before you put the router into operation, it is necessary to connect components that are needed to run your application.

1.2 Network (Ethernet)

The router has a standard network port (RJ45) for connecting products (fig.1). If additional connections are required, use the switch accessory (fig.2). Please contact Swegon for adapting the router to a BMS connection.

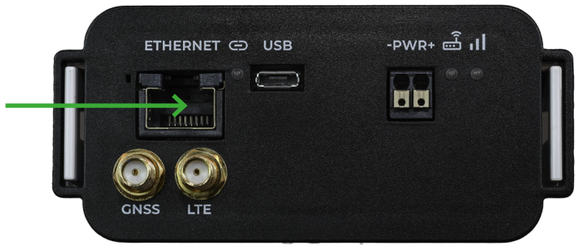


Figure 1. Ethernet port on router.

1.3 Power

The supplied transformer must always be used to connect the router to the power grid (fig.3a).

1. First, connect the power cable to the router and make sure they are firmly attached.
2. Then connect the transformer's power plug to an electrical outlet.

Figure 2. Switch for additional connections.

Figure 3a. Power supply unit.

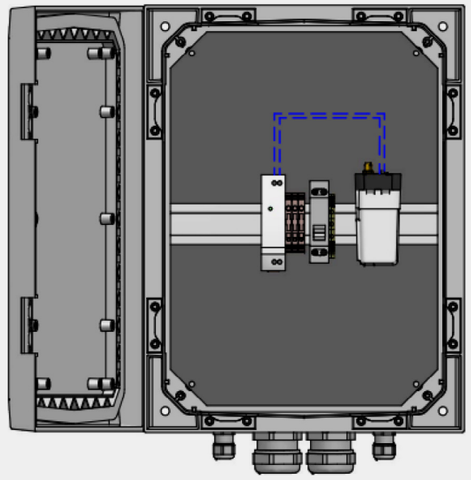


Figure 3b. Router mounted in electrical cabinet.

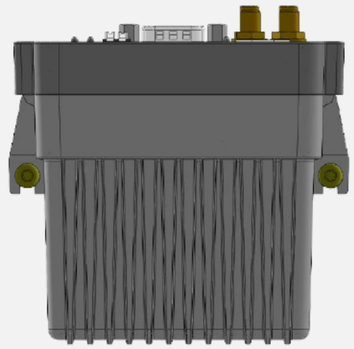
Important!

If the router is delivered in an electrical cabinet, the installation must be carried out by a qualified electrician. The electrical connection is made to the circuit breaker within the cabinet (fig.3b).

Mounting

DIN-rail/Bolt-on

The INSIDE Connect router is supplied with a bracket that fits in DIN rail and bolt-on fastening. If the router is ordered with an electrical cabinet, the router (and any optional switch) is already mounted upon delivery.

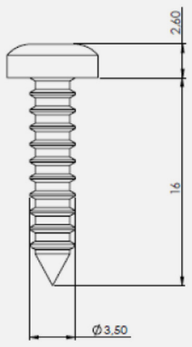


Installation with screws

If the router is to be loosely mounted with screws, the router should be mounted with the connectors facing upwards. (as shown on the left) This is to minimise the risk of the unit coming loose and falling to the ground and being damaged.

Screws

When the INSIDE connect modem is mounted using specific screws, screws with the following specification (or equivalent) should be used:
RTS ST3,5X9 ISO14585 T15 A2K, as illustrated in the drawing.



Setup process
- 5 steps to success!

Get access to INSIDE Portal

Add products to building

Request service (INSIDE Connect)

Add router to building

Connect products to router

Guide starts on the next page

2. Set up INSIDE Connect

INSIDE Connect is a service hosted on INSIDE portal. A computer or a phone with a web browser is required for maning and operating INSIDE connect uses a mobile connection. The climate system is connected to INSIDE Connect via Ethernet for additional access to each product´s website.

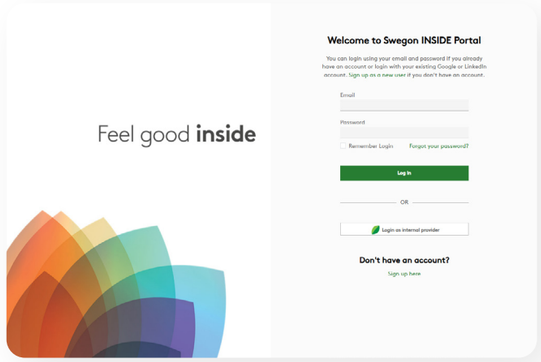


Figure 4. Log in screen to INSIDE Portal.

2.1 New users

All INSIDE Connect users must have an INSIDE Portal-account and be invited to an organisation to be able to log in and use this service.

Visit: https://www.swegon.com/support/software/connected-products/ and request access to INSIDE Portal (fig.5).

In the following step, you will be asked to enter your details in a form. Once your account, organisation and building are created, you will recieve an email with an invitation to the INSIDE portal.

Once you have an INSIDE Portal account (and are invited to an organisation) you can invite other users to your organisations and buildings.

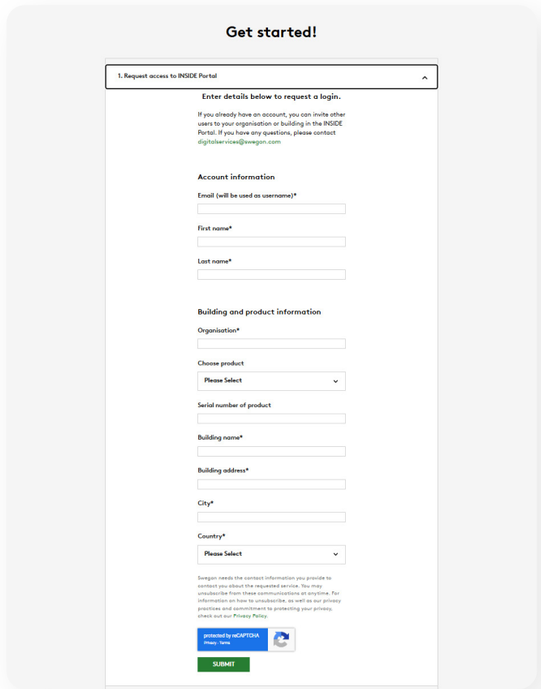


Figure 5. The form to request access to INSIDE Portal.

2.2 Connect units to INSIDE Portal

Before you can start using you INSIDE Connect router, you need to caim your Swegon units on the INSIDE Portal.

2.2.1 INSIDE Ready products*

Go to https://www.swegon.com/support/software/connected-products/ to find the guide on how to connect your INSIDE Ready unit to Swegon INSIDE.

2.2.2 Non INSIDE Ready products & 3rd party products

1. Log in to INSIDE Portal and go to the building where you want to add a product.
2. Press the button **CLAIM PRODUCT** and follow the steps.

2.3 Request service INSIDE Connect

Once the products have been successfully added to INSIDE Portal, it is time to send a request for the product(s) you want WPN access to.

1. Go to the service page, found in the left side menu in INSIDE Portal (fig.7).
2. Select each product that you want to activate INSIDE Connect for. It's possible to submit one product at a time (fig.8).

Send an email to **insideconnect@swegon.com** with 'INSIDE connect' as the subject. Please state following information in the email:

- **Your Swegon Customer number (optional)**
- **Name of the organisation & building (in INSIDE Portal)**

3. Wait for our email reply.
   While waiting for the email, you can complete the steps in 2.4.

Important!

Please note that INSIDE Connect is charged per product connected to the service.
Contact: insideconnect@swegon.com for help.

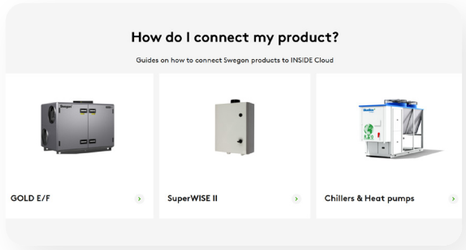


Figure 6. Guides on how to connect & claim INSIDE Ready products.
*The above products are INSIDE Ready.

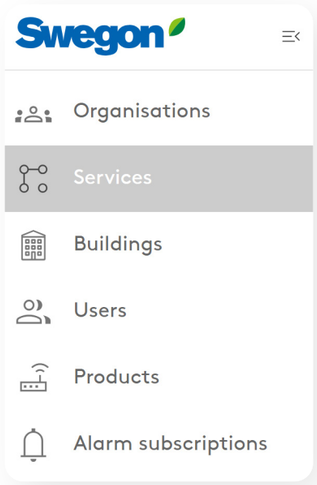


Figure 7. Services page INSIDE Portal.

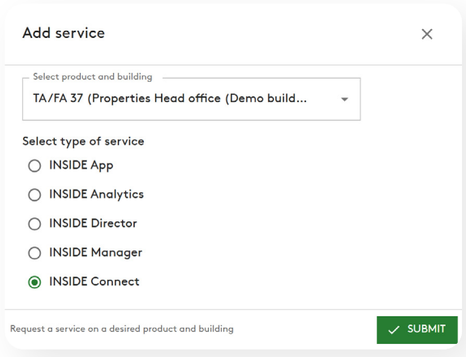


Figure 8. Request INSIDE Connect as service to a product.

2.4 Router registration

To register a router, log in to the INSIDE Portal.

1. Go to the building view and click on the tab "INSIDE connect routers".
2. Press the button **ADD ROUTER** in the top left corner (fig.9).

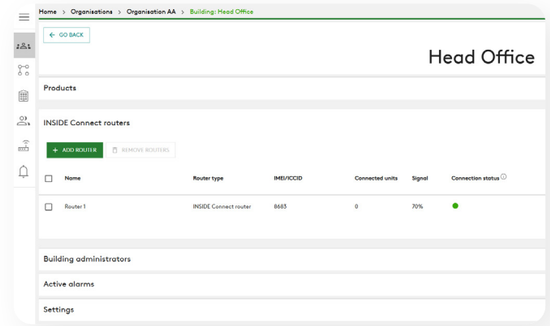


Figure. 9. Add new router to building.

2.4.1 Add new INSIDE Connect router

Fill in the information requested and then press **SUBMIT** (fig.10).

For example:
LAN IP address: 10.200.1.250
Lan Netmask: 255.255.255.0

The IMEI number can be found on the back of the router, underneath the DIN bracket, or in the SAP Portal (applicable only for routers built into Bluebox units).

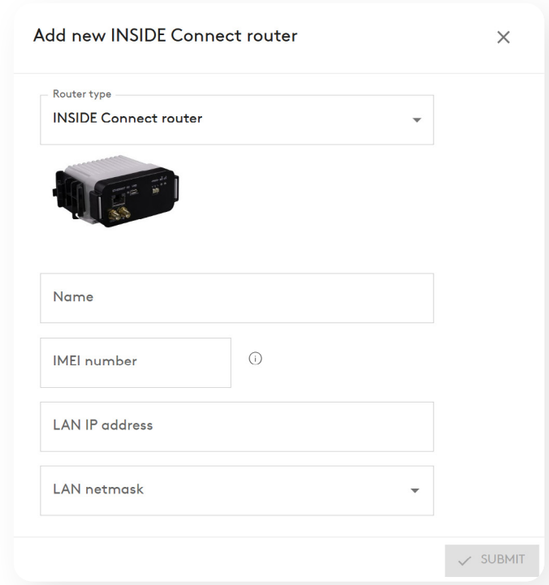


Figure 10. Fill in information about router.

2.4.2 Change routers IP settings

In some cases it may be necessary to change the IP settings for the router. This may be the case, for example, if there is a BMS network with locked IP series.

1. Go to router that you want to edit.
2. Go to settings.
3. Press the **EDIT** button.

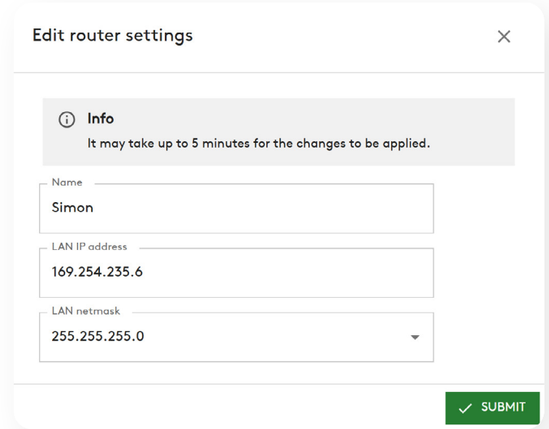


Figure 11. Edit router settings.

2.5 Connect products to your router

To connect a product to your router you need to link it with the right IP-adress. Start by going to the router page.

1. Press the button **CONNECT PRODUCT(S)**
   Each individual product has its own unique IP address.
2. Add a product by using the dropdown list and enter the product's IP address and port for each product that you want to link (fig.13-14).
3. Press the **SUBMIT** button (fig.14).

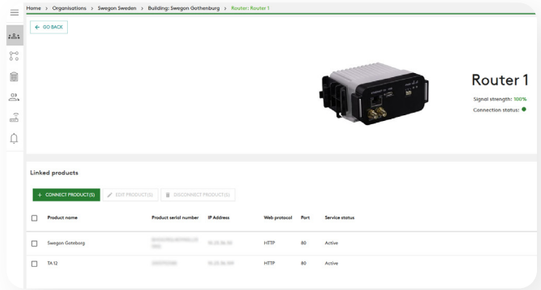


Figure 12. Connect your product to your router.

Important!

Remember that a product must be claimed in INSIDE Portal and have the service INSIDE Connect as active before you can connect it to your INSIDE Connect router.

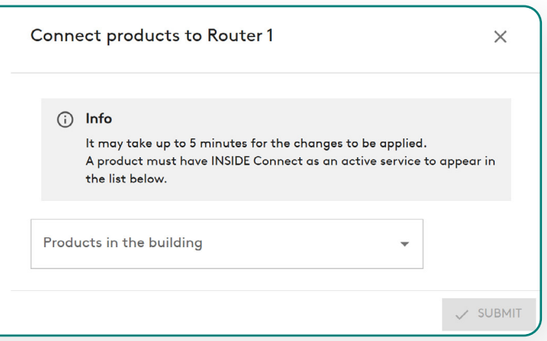


Figure 13. Service status must be active for the product to be added to a router.

2.5.1 Fill in information regarding IP address and port settings

The settings are now forwarded to the INSIDE Connect router. Note that it can take up to 10 minutes for the changes to be applied.

Configuration of the product´s IP settings should not be done in INSIDE Portal, but preferably on the conected products. Each product must be configurated for a fixed IP address and thus use one of the IP addresses in the range obtained from INSIDE connect.

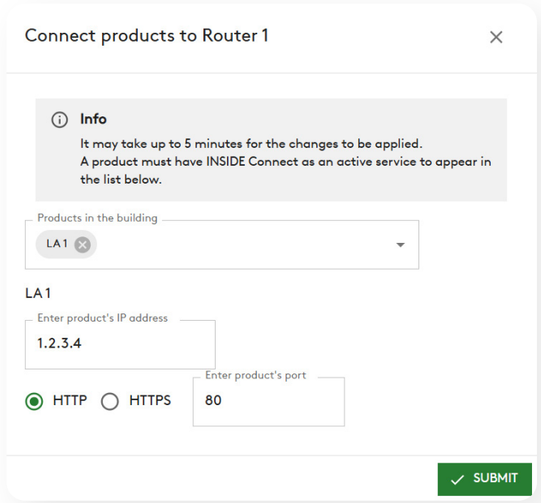


Figure 14. Fill in information regarding IP address and port settings.

3. Use INSIDE Connect

Once the INSIDE Connect service is activated and the product is connected to a router, the INSIDE Connect button will turn green (fig.15). Use this button to connect to the product´s internal website via a secure VPN tunnel.

By pressing the arrow on the right side of the button, you can choose a longer connection time than the default 30 minutes.

Figure 15. The status of the INSIDE Connect button indicates if the service is activated on the product or not.

3.1 INSIDE Connect and the connection to INSIDE Cloud

The figure below shows how the INSIDE Connect is related to INSIDE Portal and INSIDE Cloud. Note that only Swegon products that are INSIDE Ready can share data to INSIDE Cloud. The VPN service works even if data is not shared with INSIDE Cloud.

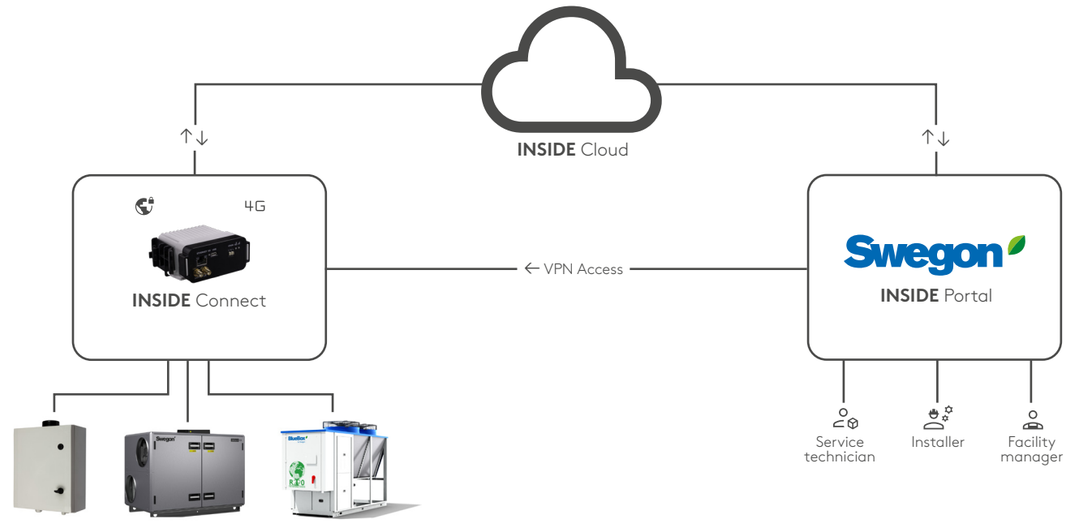


Figure 16. INSIDE Connect´s relation to INSIDE Portal and INSIDE Cloud.

4. Product specific information

Connection between INSIDE Connect and products such as GOLD and SuperWISE may vary depending on version and design. External products and networks are additional factors to consider. In the following pages we will show you how to configure different products to use the INSIDE Connect service.

4.1 GOLD Units

4.1.1 GOLD version E or later

Connect the cable from INSIDE Connect router to Ethernet Port B on the air handling unit´s control card (fig.17). The cable should be connected to the Ethernet port on the INSIDE Connect router or to the switch when used.

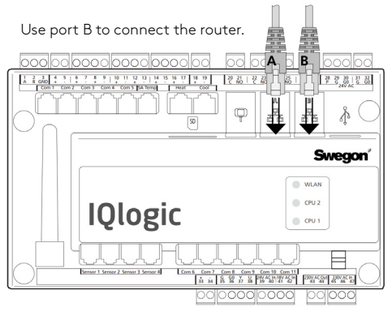


Figure 17. Ethernet cable from INSIDE Connect to GOLD IQlogic control card.

4.1.2 Several air handling units with changed network settings

When connecting two or more GOLD air handling units, the first air handling unit may have maintained its network settings, while the IP addresses of the subsequent air handling units must be corrected to avoid a conflict. The default gateway must be the same for all products connected to INSIDE Connect (fig.18-20).

Example

This example shows the connection of 3 GOLD air handling units. First make sure that the products have INSIDE Connect as an active service.

Connect the products (section 2.5) and set the IP addresses according to the IP addresses for each product e.g. 10.200.1.1 and 10.200.1.2 from example here.

Set the "IP-addresses" and "Default Gateway" in the GOLD air handling unit, via its handheld terminal or web page.

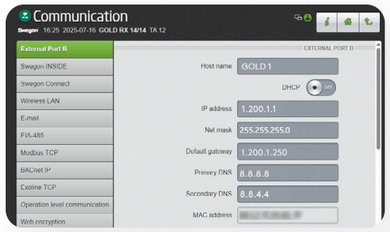


Figure 18. Network settings in GOLD AHU 1.

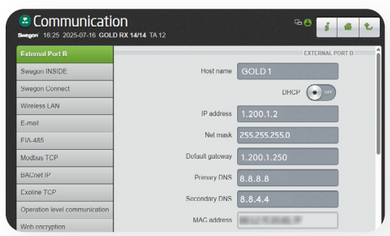


Figure 19. Network settings in GOLD AHU 2.

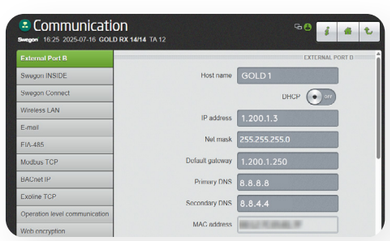


Figure 20. Network settings in GOLD AHU 3.

4.1.3 GOLD version C ord D

The air handling unit settings must be adapted prior to connecting to INSIDE Connect. This requires you to log in at installation level or service level. Set the "IP-ADDRESS" and GATEWAY" in the GOLD air handling unit, via its handheld terminal or web page. The settings are found under SETTINGS , COMMUNICATION and ETHERNET. These values should be the same as for products´ IP address in INSIDE Portal. Connect the cable from the INSIDE Connect router to the Ethernet port on the air handling unit´s control card (Fig.21). The cable should be connected to the Ethernet port on the INSIDE Connect or to the switch when used. Go to the registered router in INSIDE Connect and set the network settings so that they correspond to those of the air handling unit.

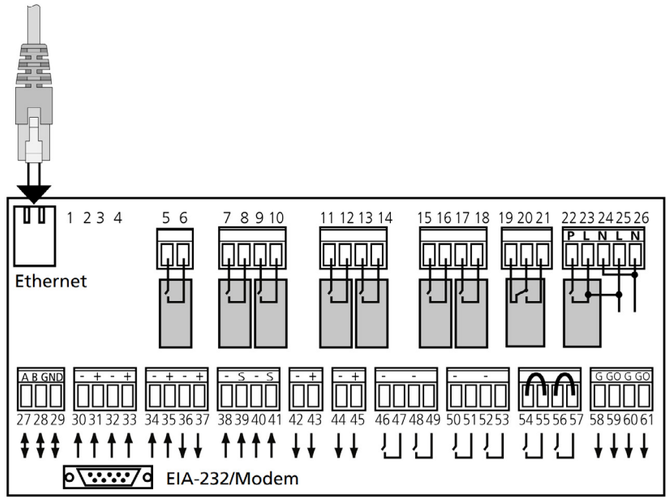


Fig. 21 Ethernet cable from INSIDE Connect to GOLD IQnomic control card.

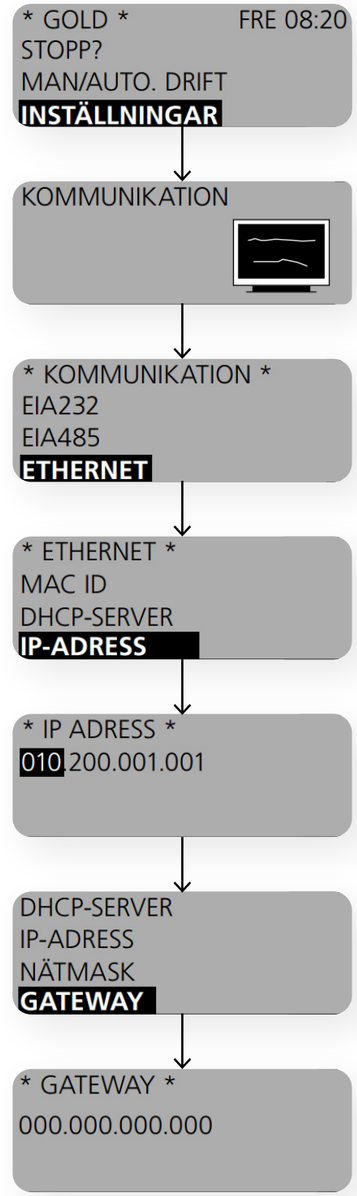


Fig. 22. Network settings in GOLD AHU, version C or D.

4.2 Bluebox units

4.2.1 IP settings on the iPro controller

Make sure that the unit controller and the INSIDE Connect router are configured in the same network.

- The IP for unit "Gateway" = IP of the INSIDE Connect router.
  (See red examples 4.2.2-4.2.4)
- Set DNS to 8.8.8.8
- Secondary DNS: 8.8.4.4

Note that the unit must be off to be able to change IP settings.

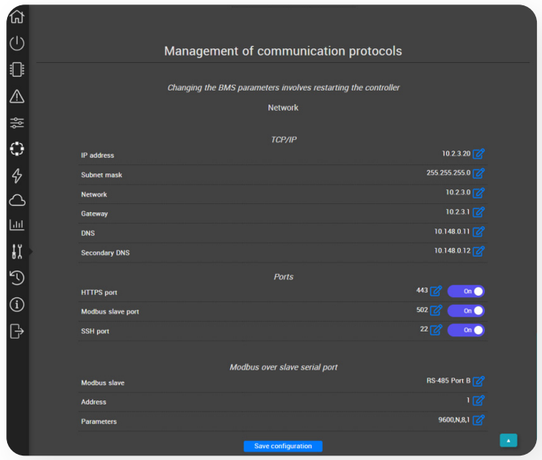


Fig 23. Network settings on a Bluebox unit

4.2.2 Example 1 - Single heat pump unit

iPRO controller	
IP address	10.2.3.20
Subnet mask	255.255.255.0
Network	10.2.3.0
Gateway	10.2.3.250
DNS	8.8.8.8
Secondary DNS	8.8.4.4
Network 2	0.0.0.0
Gateway 2	0.0.0.0
INSIDE Connect Router	
IP address	10.2.3.250
Subnet mask	255.255.255.0

Fig 24. IP-settings for a single heat pump unit

4.2.3 Example 2 - 2x heat pump units in Multilogic

iPRO controller Master	
IP address	10.2.3.20
Subnet mask	255.255.255.0
Network	10.2.3.0
Gateway	10.2.3.250
DNS	8.8.8.8
Secondary DNS	8.8.4.4
Network 2	0.0.0.0
Gateway 2	0.0.0.0
iPRO controller Slave	
IP address	10.2.3.21
Subnet mask	255.255.255.0
Network	10.2.3.0
Gateway	10.2.3.250
DNS	8.8.8.8
Secondary DNS	8.8.4.4
Network 2	0.0.0.0
Gateway 2	0.0.0.0

INSIDE Connect Router	
IP address	10.2.3.250
Subnet mask	255.255.255.0

Fig. 25. IP settings for 2x heat pump units in Multilogic

4.2.4 Example 3 - heat pump in an existing LAN network with local BMS

iPRO controller	
IP address	192.168.1.20
Subnet mask	255.255.255.0
Network	192.168.1.0
Gateway	192.168.1.22
DNS	8.8.8.8
Secondary DNS	8.8.4.4
Network 2	0.0.0.0
Gateway 2	0.0.0.0
BMS	
IP address	192.168.1.10
Subnet mask	255.255.255.0
Network	192.168.1.0
Gateway	192.168.1.55
DNS	8.8.8.8
Secondary DNS	8.8.4.4
Network 2	0.0.0.0
Gateway 2	0.0.0.0

INSIDE Connect Router	
IP address	192.168.1.22
Subnet mask	255.255.255.0

Fig. 26. IP settings for a heat pump in an existing LAN network with local BMS

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