



Commissioning Ensto Chargers

ENG Commissioning instruction



Version	Date	Updates	Author	Reviewer	Reviewer
1.0	11.03.2024	DOCUMENT MADE	B.D.K.	M.J.	R.L.
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1 Overview of the Web user interface settings

Web user interface 2.0

Top right corner shows the firmware version, date & time and language selection

Dashboard

- Page for the charger status. (available, charging, cable connected, charger in fault state)
- You can download session reports from both sockets.
- You can set some basic limits for the charging.

Diagnostics

- You can download diagnostics (log files) from both sockets that are required for the technical support in case there is an issue with the charger.
- Overview of the charger settings and state
- System information
- User logs (if there is need to see logs on site)

Network

- GSM
 - o APN settings
- LAN
 - o LAN settings (by default DHCP is in use)
- WLAN
 - o WLAN settings (by default DHCP is in use)
- NTP server

Backend

- Connection type
 - o No backend
 - o GSM
 - o Ethernet
 - o USB
 - o WLAN
- OCPP
 - o OCPP ChargePointID
 - o OCPP mode
 - o WebSocket OCPP URL of the backend
 - o Force OCPP connector state Available/Unavailable

Authorization

- Free charging
 - o Off (RFID must be used)
 - o ON (Charging starts when the cable is connected)
 - Free charging mode (if backend is in use)
- RFID whitelist
 - o Enable local whitelist must be set ON (if no backend is in use and charging must be done via RFID card)

Whitelists

- Add entry
 - o Manually add any RFID cards by typing the card ID or showing the RFID card to the reader
 - When manually adding _1 or _2 at the end of the ID you can set it to only connector 1 or 2
 - When showing the card to reader you can set it to connector 1 or 2 if needed
- Import list
 - o Add a list of RFID cards created with excel
 - RFID cards are added one below the other in their own row

Load management

- Operator current limit
- DLM settings
 - o Instructions can be found from here:
<https://evwiki.ensto.technology/display/CHWI/Configure+Advanced+Dynamic+Load+M+anagement>
- HDLM settings
 - o Contact Legrand support via web form: <https://www.legrand.fi/en/technical-support>

Installation

- Installation current limit
- Single-feed option
- Phase rotation
- Permanently locked cable

System

- Time zone
- Change of password
- Restart charger
- Factory reset for operator settings
- Firmware update

- You can download the latest firmware version from here:
<https://evwiki.ensto.technology/display/CHWI/Get+latest+firmware+version+for+charge+controllers>

Documentation

- You can find all the explanations for parameters and error messages from here

Web user interface (legacy)

Both master and slave side have own pages for settings

Firmware version in use can be found from the top of the page

Date & time are shown on the top right corner of the page

State

Main view of the charger state

- OCPP state
- Charging state
- Error list

Settings

Most used settings

- Charger ID
- Backend related settings. Backend settings are only needed for master side.
 - OCPP Chargebox ID
 - Must match the ID that has been set on the backend
 - Connection Type
 - No backend
 - No backend is in use
 - GSM
 - APN settings
 - Ethernet
 - By default DHCP is in use
 - USB
 - Slave side must be connected to the master side with USB cable
 - WLAN
 - ID & password
 - By default DHCP is in use
 - OCPP mode
 - OCPP protocol
 - Websocket URL
- Free charging ON/OFF. Only needed for master side as the slave side will copy this setting.

- Operator current limit. This setting needs to be set for both sides individually.
 - o Cannot exceed manufacturer or installation current limit but can be changed anytime.

Operator

All the settings that can be changed for the charger

- Includes all the settings found already in settings page but more detailed and more options.
- Examples:
 - o Network settings
 - o OCPP whitelist
 - o Local whitelist
 - When charger is not connected to any backend but Free charging is OFF and RFID card must be used to start charging.
 - Enable local whitelist must be set ON
 - List of entries in local whitelist: RFID card IDs are added here. Example of two RFID cards: AA123D3F:1234FE9A
 - You can also swipe the RFID card over the RFID reader when Local whitelist learning mode has been set ON
 - o HDLM
 - Contact Legrand support via web form: <https://www.legrand.fi/en/technical-support>
 - o DLM
 - Instructions can be found from here:
<https://evwiki.ensto.technology/display/CHWI/Configure+Advanced+Dynamic+Load+Management>
 - o Meter configuration (second)
 - External meter
 - o Phase rotation
 - o Download logs (button next to Log level)
 - o Web interface selection
 - 1.0 (legacy)
 - 2.0 recommended to be able to have both in use
 - 2.0 (only)
- After changing the settings, you will most likely need to click Save & Reboot from the bottom of the page. Some settings do not need reboot (documentation page has this information).

System

- System information
- Firmware update
 - o Download the new firmware for your laptop
 - select it and click Install (Update can be take from 10 minutes to even 30 minutes depending on the old and new firmware versions)

- You can download the latest firmware version from here:
<https://evwiki.ensto.technology/display/CHWI/Get+latest+firmware+version+for+charge+controllers>

Documentation

- Error documentation
 - When you have any errors on the state page error list, you can first check the error explanation from here
- OCPP keys documentation
 - Description of all the settings

All the parameter names and locations are based on 5.33.1 FW version. Keep in mind that those parameter names can be with different names, or it could be found behind a different page.

Also, there are some parameters that are not found in older firmware versions.

Legrand technical support can be contacted via web form: <https://www.legrand.fi/en/technical-support>

2 Commissioning

Before commissioning, the Ensto charger must be installed according to the installation instructions.

By default, all Ensto chargers are operating in free charging mode (standalone operation).

In this standalone mode external communication (Ethernet, Wifi and 2G/3G/4G) is not active. If the Ensto charger is going to be connected to some cloud management system (online mode), first make sure that the basic functionality is working before establishing communication.

Based on firmware version, two graphical user interfaces are available for installer when doing configurations of the charger locally. We refer to them as WebGUI 1.0 and WebGUI 2.0 Please note that these two versions are only available in firmware 5.xx or newer. If configuring older firmware versions only WebGUI 1.0 will be available. If WebGUI 2.0 is selected this is the page that will be available when connecting to charger via its IP address, if connected directly with USB cable this IP address is <http://192.168.123.123/> If user for any reason would like to access WebGUI 1.0 on chargers where WebGUI 2.0 is present, this can be reached by using the address <http://192.168.123.123/legacy/> We recommend to use WebGUI 2.0 if possible.

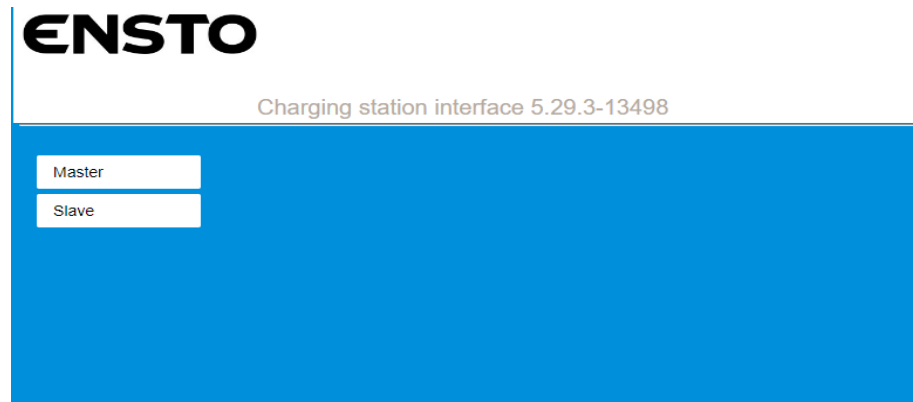


Figure 1 WebGUI 1.0

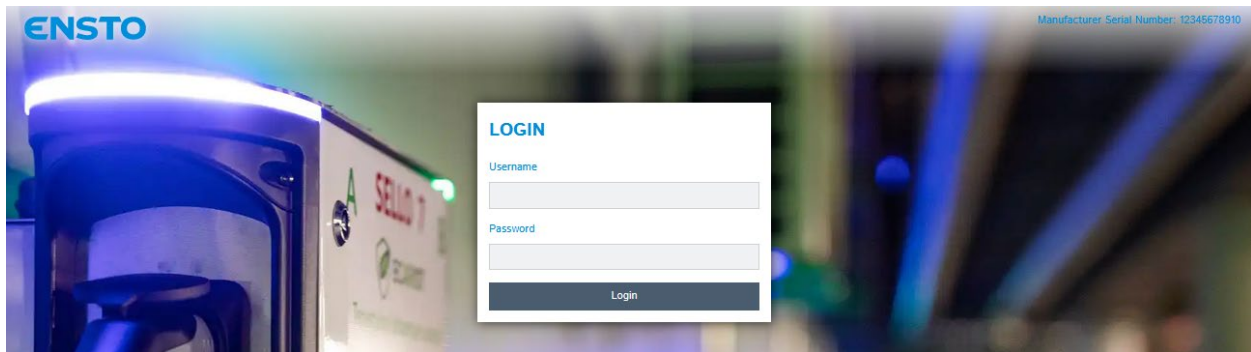


Figure 2 WebGUI 2.0

3 Commissioning using WebGUI 1.0

3.1 Connecting to Ensto charger

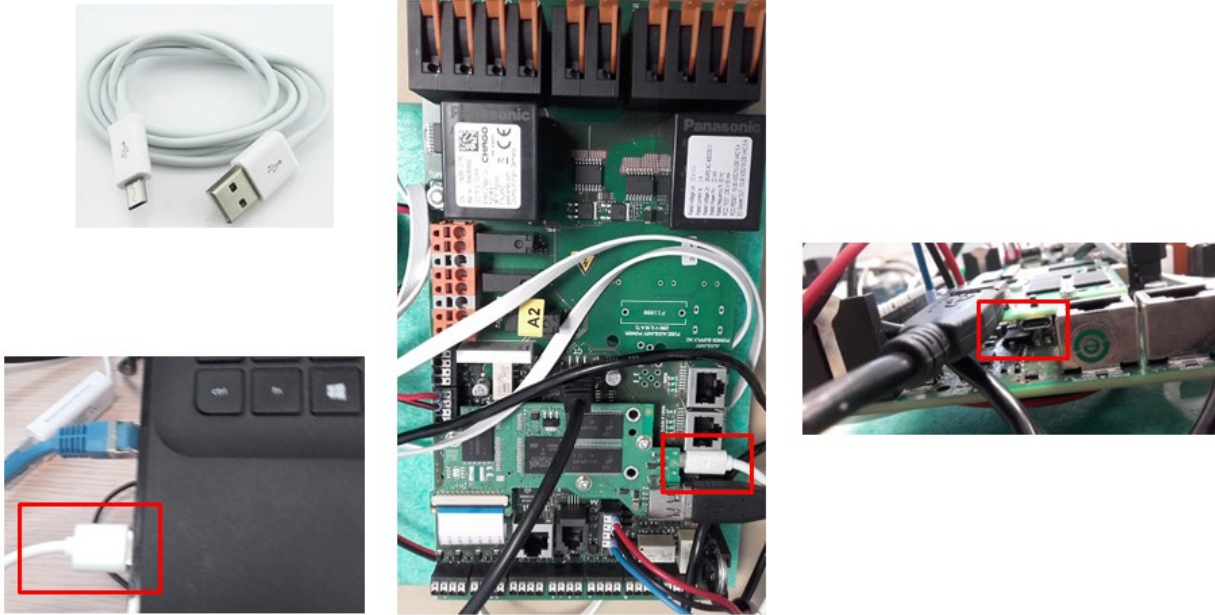
If you want to change the default settings, you must connect to Ensto charger via web configuration interface to be able to proceed with the commissioning settings. Use web browser like Chrome, Firefox or Windows Explorer for configuring.

3.2 Configuration of Ensto charger

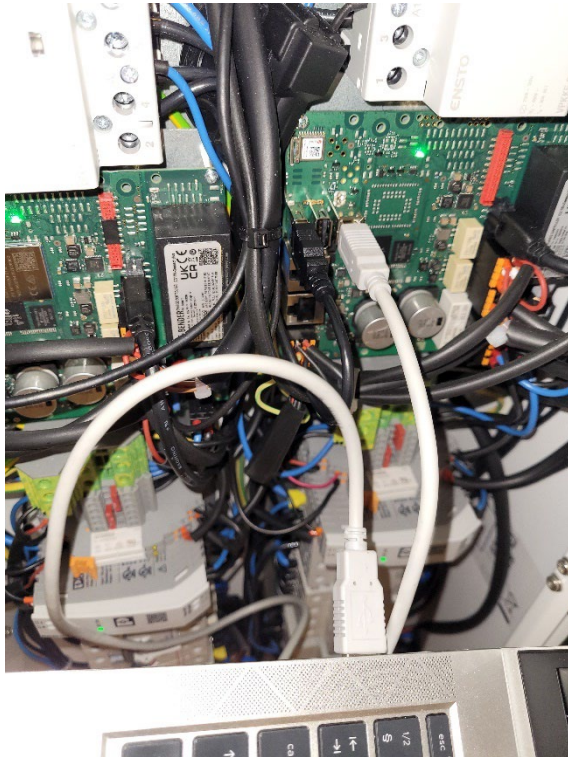
If you want to see device status, and settings, login as viewer. Connect your service laptop to charger by using micro-USB (Generation 1) or USB-B (Generation 2) service port then follow steps below.

Generation 1 service port can be found from right-side controller where this micro-USB port is available.

Note: One socket version has only one controller so there is only one possible micro-USB port on the charger.



Generation 2 service port can be found from the right-side controller where this USB-B port is available.



1. Go to: <http://192.168.123.123/>
if using 5.xx firmware, go to: <http://192.168.123.123/legacy/>
2. Login page opens, select “Master” or “Slave” controller to review settings.

ENSTO

Charging station interface 5.32.0-18892

1970-01-01 00:17 UTC

State	OCPP ChargeBoxIdentity (ChargePointID)	+49*939*0000000001	ID that is sent to the backend and used by the backend to identify the ChargePoint.
Settings	EVSE Identity		The 'EVSE Identity' can be used to differentiate a technical ID in the backend from the ID that is presented to the user. If set, the 'EVSE Identity' will be used for ISO 15119 certificate signing requests. When left empty, the ISO 15119 name of the EVSE will be derived from the 'ChargeBoxIdentity'.
System	OCPP State	IDLE (faulted)	State of OCPP at connector 1.
Documentation	Type2 State	(A) Vehicle not connected PR: NO CABLE AMCC: (-/-)	State of TYPE2 socket at connector 1.
	Signaled Current	0 A	Current (in Ampere) that is signaled to the vehicle via PWM.
	Connection Type (Backend)	No Backend	Current connection type used for communication with the backend.

3. If you want to make changes, login as operator.

Operator Login will make it possible to access additional configuration pages.

ENSTO

Charging station interface 5.32.0-18892

1970-01-01 00:18 UTC

State	OCPP ChargeBoxIdentity (ChargePointID)	+49*939*0000000001	ID that is sent to the backend and used by the backend to identify the ChargePoint.
Settings	EVSE Identity		The 'EVSE Identity' can be used to differentiate a technical ID in the backend from the ID that is presented to the user. If set, the 'EVSE Identity' will be used for ISO 15119 certificate signing requests. When left empty, the ISO 15119 name of the EVSE will be derived from the 'ChargeBoxIdentity'.
> Default	OCPP State	IDLE (faulted)	State of OCPP at connector 1.
Operator	Type2 State	(A) Vehicle not connected PR: NO CABLE AMCC: (-/-)	State of TYPE2 socket at connector 1.
System	Signaled Current	0 A	Current (in Ampere) that is signaled to the vehicle via PWM.
Documentation	Connection Type (Backend)	No Backend	Current connection type used for communication with the backend.
	Connection State (Backend)	Not Connected	Current state of the backend connection on TCP level.

- Connect to selection page / configuration page of single sided charger

Go to: <http://192.168.123.123/operator>
 or <http://192.168.123.123/legacy/operator>

- Connect to SLAVE controller.

Go to: <http://192.168.123.123/operator>
 or <http://192.168.123.123/legacy/operator>

- Connect to MASTER controller.

Go to: <http://192.168.123.123:81/operator>
 or <http://192.168.123.123:81/legacy/operator>

When operator selection is visible you can make changes to connection setting (OCPP, Ethernet, 4G modem etc.)

When browser asks for username and password, enter the following:

Username = operator

Password = yellow_zone

Note! Due to IPSec requirements, these passwords are subject to change. Operator/Installer must set unique passwords that will not be available for Ensto representatives.

3.3 Commissioning Standalone Charging Point

3.3.1 Free Charging

By default, “Free Charging” is on. Charging starts immediately after a vehicle is connected. Authorization using a RFID tag or via backend is not in use.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. The unit is ready for use in “Free charging” mode.

Note! By default, the maximum charging current is 32 A. The maximum charging current can be changed. Login to the charging point and enter the new maximum current with parameter “Operator Current Limit (A)”. Apply changes to Master and Slave controllers separately.

Note! Charger may have a single feed option starting from firmware 5.xx “Charging Station with single feed” that can be set On/Off. When single feed is ON, you can set the maximum current for the whole charger “Charging Station Installation Current Limit [A]”. Maximum can be 63A.

Example: Single feed is set as 32A and operator current limit is set as 32A for both sides the charger will have an internal load balancing active. When one car is charging, it will get 32A but when two cars are charging at the same time, they will get 16A.

Note! Supply phase configuration. By default, the charging point is configured with 3-phase supply. In case of 1-phase supply, change the phase configuration. Login to the charging point and enter the existing phase parameter “Phases connected to the Charge Point”. Apply changes to Master and Slave controllers separately.

3.3.2 Authorized charging

Charging starts when showing RFID tag to the RFID reader.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.

Note! The startup can take up to 5 minutes.

5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123:81/operator> or <http://192.168.123.123:81/legacy/operator>.
7. Under page “Operator”, Select “Free charging” mode OFF.
8. Under page “Operator”, Set “Enable Local Whitelist” ON
9. Add RFID ID’s on the internal memory of the charging point “List of entries in local whitelist”:

Note: List of colon-separated IDs for the cache. A maximum of 80 entries are shown. To clear the cache, the list must be empty. The listed IDs are added, while the other cache entries are not deleted.

See the example below.

List of entries in local whitelist

CA9BF15E:

List of colon-separated IDs for the local whitelist. A maximum of 80 entries are shown. To clear it the list must be empty. The listed IDs are added, while the other entries are not deleted. Enter IDs in the following format: AA123D3F:1234FE9A:

10. You can also add the RFID card by swiping the RFID card for the reader when “Local whitelist learning mode” has been set ON, it is also possible to set the RFID only for connector 1 or 2.
11. When ready, click “Save & Restart” to active the new settings.
12. Wait until the front cover or top LED turns to green.
13. Close front cover or service door.

3.4 Commissioning Online Charging Point

3.4.1 Configuring Ethernet operation

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123:81/operator> or <http://192.168.123.123:81/legacy/operator>.
7. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings:

- Charging point ID (OCPP), by default serial number of the controller (master / slave), must match the ID on the backend
- Connection type, select “Ethernet”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

Ethernet connection settings:

DHCP in use

8. When ready, click “Save & Restart” to active the new settings.
9. Wait until the front cover or top LED turns to green.
10. Ensure that the set charging point ID is visible at the used back-end system.
11. Close the front cover or service door.

3.4.2 Configuring Wifi operation

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Generation 2: Log in <http://192.168.123.123:81/operator> or <http://192.168.123.123:81/legacy/operator>.
7. Generation 1 (only one sided): Log in <http://192.168.123.123/operator> or <http://192.168.123.123/legacy/operator>.
8. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings, under page “Backend”:

- Charging point ID (OCPP), by default serial number of the controller (master / slave), must match the backend ID
- Connection type, select “Ethernet”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

Ethernet connection settings under page “Network”:

DHCP in use

9. When ready, click “Save & Restart” to active the new settings.
10. Wait until the front cover or top LED turns to green.
11. Ensure that the set charging point ID is visible at the used back-end system.
12. Close the front cover or service door.

3.4.3 Configuring 2G/3G/4G Operation

One “micro-SIM” card is needed per charger.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller

4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! *The startup can take up to 5 minutes.*
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123:81/operator> or <http://192.168.123.123:81/legacy/operator>.
7. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings:

- Charging point ID (OCPP), by default serial number of the controller (master / slave), must match the backend ID
- Connection type for the modem by default is set as auto. You can also force the connection to specific by selecting “4G”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

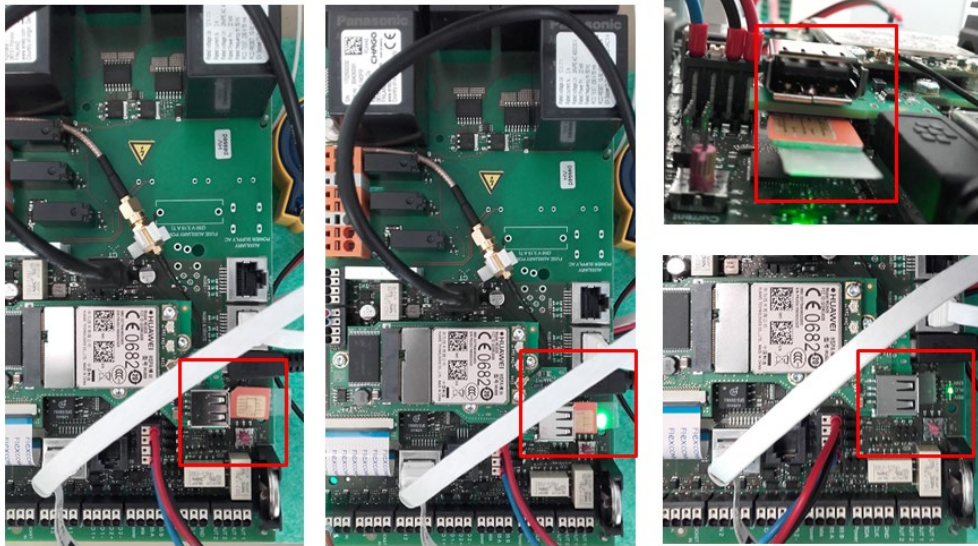
2G/3G/4G modem settings:

- APN name (operator dependent)
 - APN username / password (if in use)
 - SIM card PIN number (if NoPin version)
8. When ready, click “Save & Restart” to active the new settings.
 9. Wait until the front cover or top LED turns to green.
 10. Ensure that the set charging point ID is visible at the used back-end system.
 11. Close the front cover or service door.

“Micro-SIM” card

If you need to remove the “micro-SIM” card, pull the white tape which is attached on the rear side of the card.

Generation 1 controller



Generation 2 controller

(Pictures still missing)

4 Commissioning using WebGUI 2.0

4.1 Connecting to Ensto charger

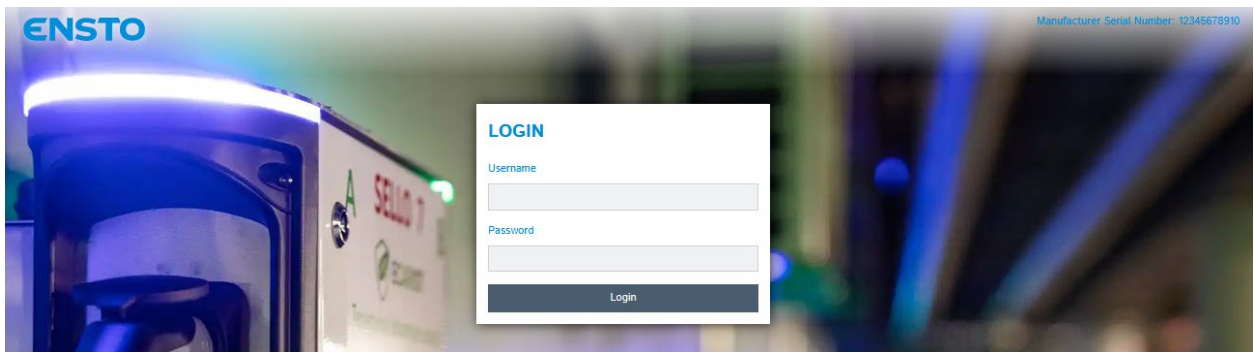
If you want to change the default settings, you must connect to Ensto charger via web configuration interface to be able to proceed with the commissioning settings. Use web browser like Chrome, Firefox or Windows Explorer for configuring.

4.2 Configuring to Ensto charger

If you want to see device status, and settings, login as viewer. Connect your service laptop to charger by using micro-USB (Generation 1) or USB-B (Generation 2) service port then follow steps below.

1. Go to: <http://192.168.123.123/>

In WebGUI 2.0 setting for both Master and Slave side is done in one common interface.



2. If you want to make changes, login as operator.

Operator Login will make it possible to access additional configuration pages.

In login in fields for username and password, enter the following:

User name = operator

Password = yellow_zone

Note! *Due to IPsec requirements, these passwords is subject to change. Operator/Installer must set unique passwords that will not be available for Ensto representatives.*

4.3 Commissioning Standalone Charging Point

4.3.1 Free Charging

By default "Free Charging" is on. Charging starts immediately after a vehicle is connected. Authorization using a RFID tag or via backend is not in use.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).

Note! *Only applicable for Generation 1 charger controller*

4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.

Note! *The startup can take up to 5 minutes.*

5. The unit is ready for use in “Free charging” mode.

Note! *By default the maximum charging current is 32 A. The maximum charging current can be changed. Login to the charging point and enter the new maximum current with parameter “Operator Current Limit (A)”.*

Note! *Charger may have a single feed option starting from firmware 5.xx “Charging Station with single feed” that can be set On/Off. When single feed is ON, you can set the maximum current for the whole charger “Charging Station Installation Current Limit [A]”. Maximum can be 63A.*

Example: *Single feed is set as 32A and operator current limit is set as 32A for both sides the charger will have an internal load balancing active. When one car is charging, it will get 32A but when two cars are charging at the same time, they will get 16A.*

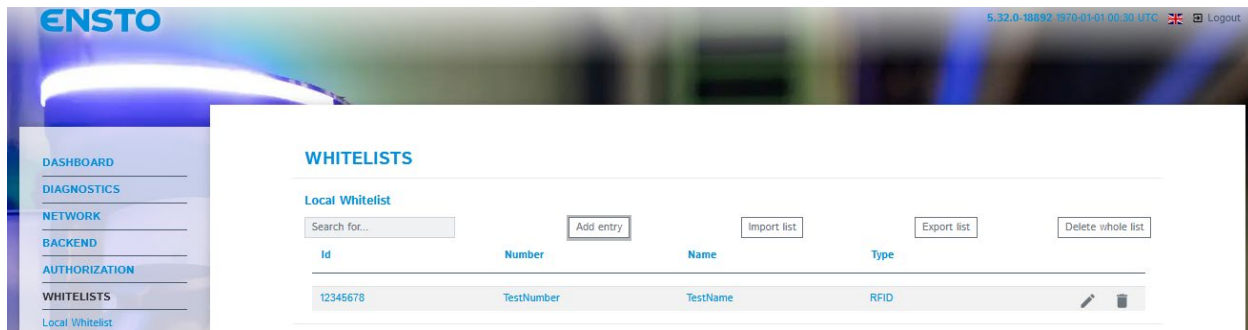
Note! *Supply phase configuration. By default the charging point is configured with 3-phase supply. In case of 1-phase supply, change the phase configuration. Login to the charging point and enter the existing phase parameter “Phases connected to the Charge Point”.*

4.3.2 Authorized charging

Charging starts when showing RFID tag to the RFID reader.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! *Only applicable for Generation 1 charger controller*
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! *The startup can take up to 5 minutes.*
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123/>
7. Under page “Authorization”, Select “Free charging” mode off.
8. Under page “Authorization”, select “Enable local whitelist” mode on.
9. Add RFID ID’s on the internal memory of the charging point via the page “Whitelists” Add entry

See the examples below.



10. You can also add the RFID card by swiping the RFID card for the reader when you click Add entry, it is also possible to set the RFID only for connector 1 or 2.
11. You can also Import already created excel list of RFID cards when clicking Import list. RFID cards are added one below the other in their own row in the excel.
12. When ready, click “Save & Restart” to active the new settings.
13. Wait until the front cover or top LED turns to green.
14. Close front cover or service door.

4.4 Commissioning Online Charging Point

4.4.1 Configuring Ethernet operation

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123/>
7. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings, under page “Backend”:

- Charging point ID (OCPP), by default serial number of the controller (master / slave)
- Connection type, select “Ethernet”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

Ethernet connection settings under page “Network”:

DHCP in use

8. When ready, click “Save & Restart” to active the new settings.
9. Wait until the front cover or top LED turns to green.
10. Ensure that the set charging point ID is visible at the used back-end system.

11. Close the front cover or service door.

4.4.2 Configuring Wifi operation

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. Connect your service laptop to charger by using micro-USB (generation 1) or USB-B (Generation 2) service port.
6. Log in <http://192.168.123.123/>
7. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings, under page “Backend”:

- Charging point ID (OCPP), by default serial number of the controller (master / slave)
- Connection type, select “Ethernet”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

Ethernet connection settings under page “Network”:

DHCP in use

8. When ready, click “Save & Restart” to active the new settings.
9. Wait until the front cover or top LED turns to green.
10. Ensure that the set charging point ID is visible at the used back-end system.
11. Close the front cover or service door.

4.4.3 Configuring 2G/3G/4G Operation

One “micro-SIM” card is needed per charger unit.

1. Open the front cover or service door.
2. Switch Main switch power ON.
3. Ensure that the DC power supply turns on (green LED).
Note! Only applicable for Generation 1 charger controller
4. Wait until front cover or top LED turns from red to green. Charger may still be doing some self-tests so it may not be ready yet.
Note! The startup can take up to 5 minutes.
5. Connect your service laptop to charger by using micro-USB service port.
6. Log in <http://192.168.123.123/>
7. In order to set the unit to online mode the following settings must be activated:

Back-end connection settings in page «Backend»:

- Charging point ID (OCPP), by default serial number of the controller (master / slave)
- Connection type for the modem by default is set as auto. You can also force the connection to specific by selecting “4G”
- OCPP mode (depends on the communication protocol the connected back-end supports)
- SOAP / JSON OCPP URL (back-end connection address), select SOAP or JSON based on used OCPP mode (**Note!** Soap is no longer supported in 5.xx firmware)

2G/3G/4G modem settings in page «Network»:

- APN name (operator dependent)
- APN username / password (if in use)
- SIM card PIN number (if NoPin version)

8. When ready, click “Save & Restart” to active the new settings.
9. Wait until the front cover or top LED turns to green.
10. Ensure that the set charging point ID is visible at the used back-end system.
11. Close the front cover or service door.

“Micro-SIM” card

If you need to remove the “micro-SIM” card, pull the white tape which is attached on the rear side of the card.

5 User Instructions

5.1 User Interfaces

5.1.1 LED signal lights will show the status of the charging point as described below:

<u>Charging point status</u>	<u>LED light</u>	<u>LED operation</u>
<i>Charging point free and ready to use</i>	<i>Green</i>	<i>Stable</i>
<i>RFID read, user login ongoing</i>	<i>Green</i>	<i>Flashing</i>
<i>User login fail, access denied</i>	<i>Red</i>	<i>Stable</i>
<i>User login passed, charging allowed</i>	<i>Green</i>	<i>Waving</i>
<i>While connecting the cable</i>	<i>Green</i>	<i>Flashing twice</i>
<i>Vehicle connected, charging not started</i>	<i>Blue</i>	<i>Waving</i>
<i>Vehicle connected, starts charging</i>	<i>Blue</i>	<i>Waving</i>
<i>Charging ongoing</i>	<i>Blue</i>	<i>Stable</i>
<i>Error state</i>	<i>Red</i>	<i>Stable</i>

5.2 Charging

5.2.1 Free charging

- Plug in your electric vehicle to start charging.

- Unplug your electric vehicle to stop charging.

5.2.2 Charging with RFID

You must have an RFID tag which has a permission to access the charging point.

5.2.2.1 Start Charging with RFID

- When the charging point is free and the indicator light shows green, you can start a charging event.
- Show the RFID tag to the RFID reading area.
- When the RFID tag is read, the charging point will flash green and verify the user permission to charge. If the user login is failed, the indicator light turns to red. If the user login is passed, the indicator light turns to waving green.
- Now you are logged in to the charging station.
- Plug in the electric vehicle for charging. The indicator light turns to stable blue.

5.2.2.2 Stop Charging with RFID

- Show the RFID tag to the RFID reading area.
- When you stop the charging event, the indicator light turns to waving green and you are able to unplug the charging cable.
- After you have unplugged, you are logged out from the charging point and the charging point is free for the next user.