

SYMEO LOCAL POSITIONING RADAR



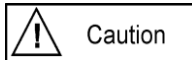
Product Manual

STU – Symeo Telemetric Unit



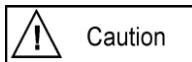
1 Overview

1.1 Safety Instructions



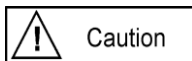
Follow the safety instructions in the operating instructions for the device and the additional documentation!
Keep these safety instructions and other documents together with the device.

1.2 Installation



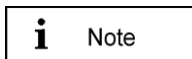
All installation, repair and servicing work must be carried out by qualified and trained technicians!

1.3 Repairs



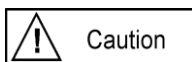
Repairs to the device must be carried out by authorized technicians. Unauthorized opening and incorrect repairs could result in severe danger to the user (danger of electric shock, radiated energy, fire hazard).

1.4 Transport and Storage



Use the original packaging or other suitable packaging for returns and whenever the system is to be transported. This ensures protection from crushing, impacts, moisture and electrostatic discharge.
During setup and before operation, refer to the instructions for environmental conditions included in the operating instructions for the device.
Route the wires in such a way that they do not cause a hazard and are not damaged. When connecting the wires, refer to the corresponding instructions in the operating instructions for the device.
Do not drop the device and do not expose it to strong vibrations.

1.5 Power Supply



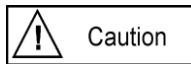
A safety-inspected power cable that satisfies the regulations of the country of use is required for the device. Devices with metal housings must only be connected to a grounded, shock proof socket.

The device must not be operated unless the nominal voltage of the device matches the local supply voltage. Check the supply voltage of the device in stationary devices.

Connecting and disconnecting wires refer to the instructions in the operating instructions for the device.

Do not use any damaged wires (damaged insulation, exposed wires). A faulty wire poses a risk of electric shock or fire hazard.

1.6 Setup and Operation



During installation, make sure that no objects or fluids get inside the device (risk of electric shock, short circuit).

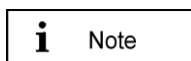
In emergencies (e. g. if there is damage to the housing, control elements or the mains cable, if fluids or foreign bodies have infiltrated the equipment), switch off the power supply to the device immediately and notify your SYMEO Service.

Protect the contacts of all of the device's sockets and plugs from static electricity. Do not touch the contacts. If it is ever necessary to touch the contacts, take the following precautionary measures: Touch a grounded object or carry a ground strap before touching the contacts. This will divert static charges.

Proper operation (in accordance with IEC60950/EN60950) of the device is only assured if the housing and integral covers for mounting slots are fully installed (electric shock, cooling, fire protection, noise suppression). If necessary, refer to the corresponding instructions in the operating instructions for the device.

In the case of high outside temperatures and intense, direct solar radiation or other radiant heat, it may be necessary to provide a sun or heat shield.

1.7 System Extensions and Accessories

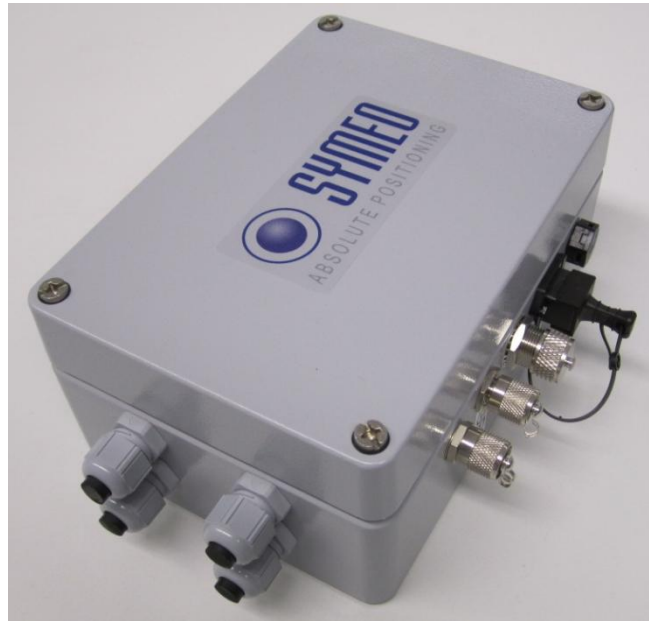


Data links to peripheral devices must be provided with adequate shielding.

For LAN cabling, the requirements in accordance with EN 50173 and EN 50174-1/2 apply. Use of either a Category 5 shielded cable for 10/100 Ethernet or Category 5e shielded cable for gigabit Ethernet is a minimum requirement. The specifications of standard ISO/IEC 11801 must be complied with.

The warranty shall be voided if you cause defects to the device by installing or exchanging system extensions.

2 Introduction



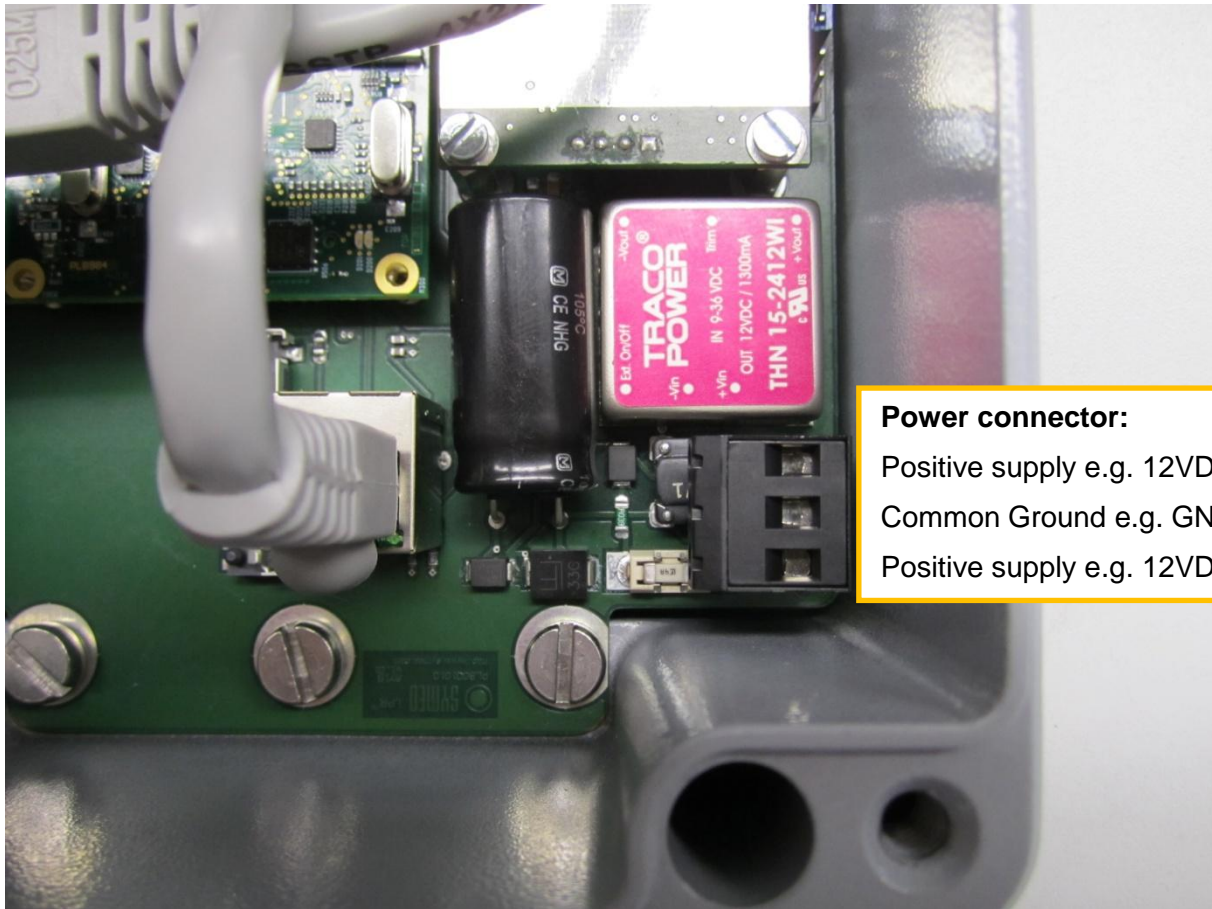
Basic hardware setup:

- GPS via u-blox LEA6 chipset
- Ethernet (10BASE-T/100BASE-TX, HP Auto-MDIX, Auto-negotiation)
- 1x Micro SDHC card
- 1x USB (e.g. for USB storage devices)

Optional hardware:

- 8 Digital inputs, opto-isolated
- 8 Digital outputs, opto-isolated
- 4 ADC inputs, opto-isolated
- UMTS(HSUPA/HSDPA/HSPA) or GSM(GPRS/EDGE) Modem
- Wifi module 802.11b/g with 802.11i (WPA2) security
- 1x CAN
- 1x RS232
- 1x RS422/485
- Li-Ion/Li-Po battery pack
- Other features available via internal feature board connector.

3 Connections



Power connector:
Positive supply e.g. 12VDC
Common Ground e.g. GND
Positive supply e.g. 12VDC

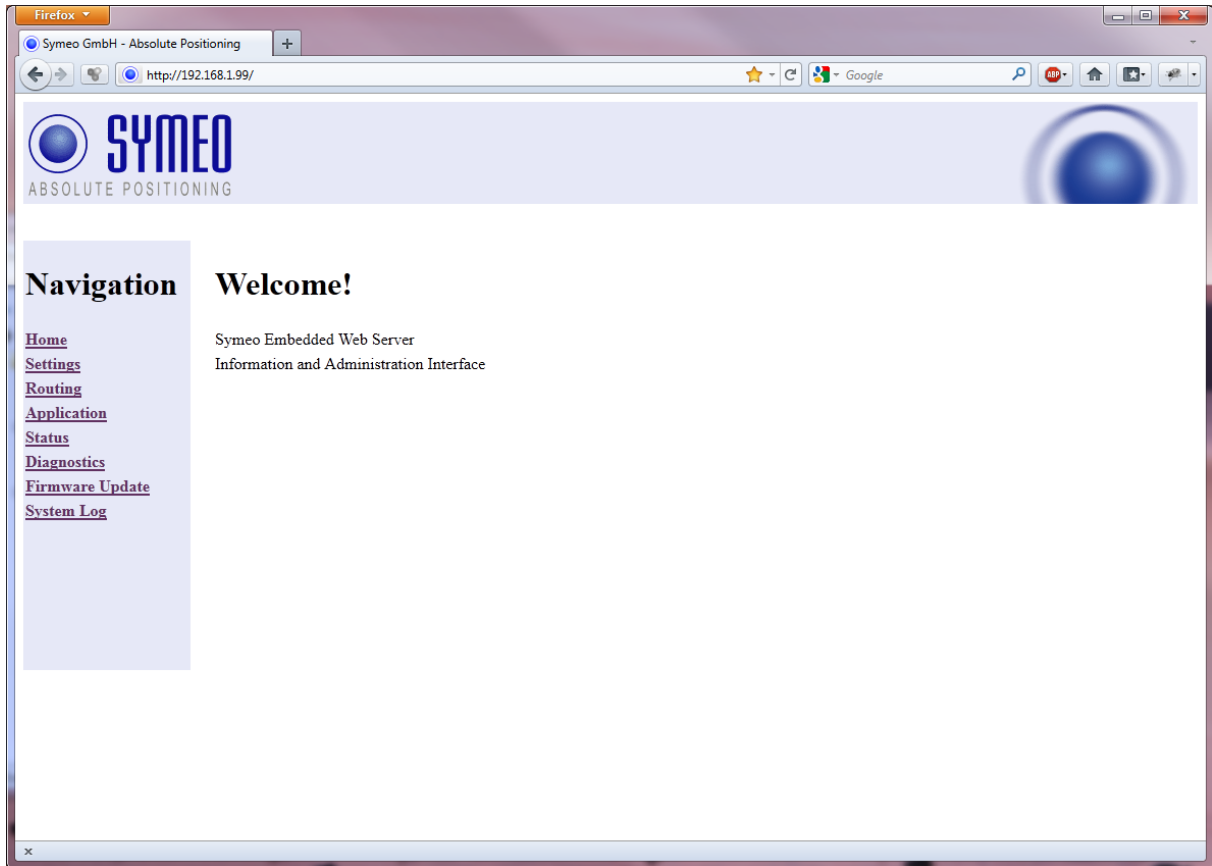
Power has to be connected to internal 3pin terminal connector. Ground has to be connected to the terminal 2 (terminal in the middle of the connector), positive DC supply can be connected to two outer terminals. The STU is fused, protected against overvoltage and against reverse polarity.



Attention: The STU is only rated IP65 if proper connectors (e.g. Harting Push Pull RJ45 part number 09451451100) are used and if all unused feed-through are properly sealed.

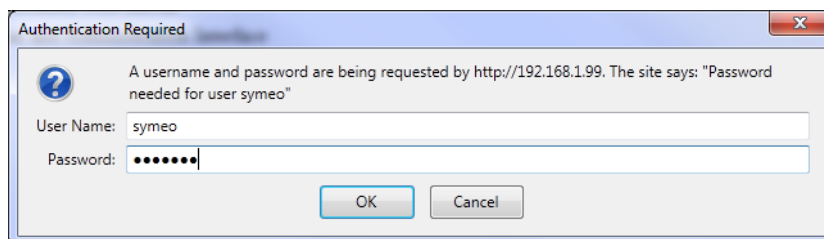
4 Network settings

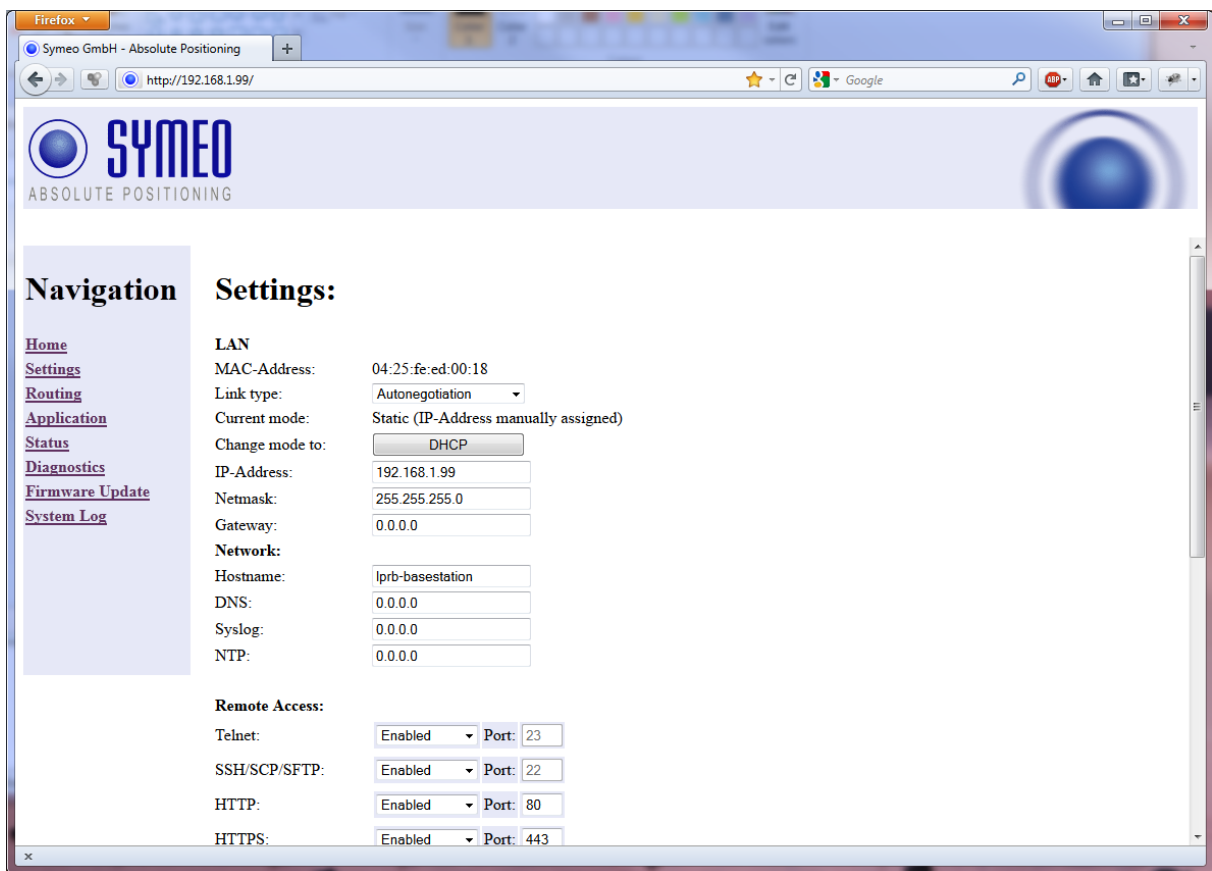
If the basic network configuration of the STU needs to be changed, connect to the STU by any web browser, default address is 'http://192.168.1.99/'.



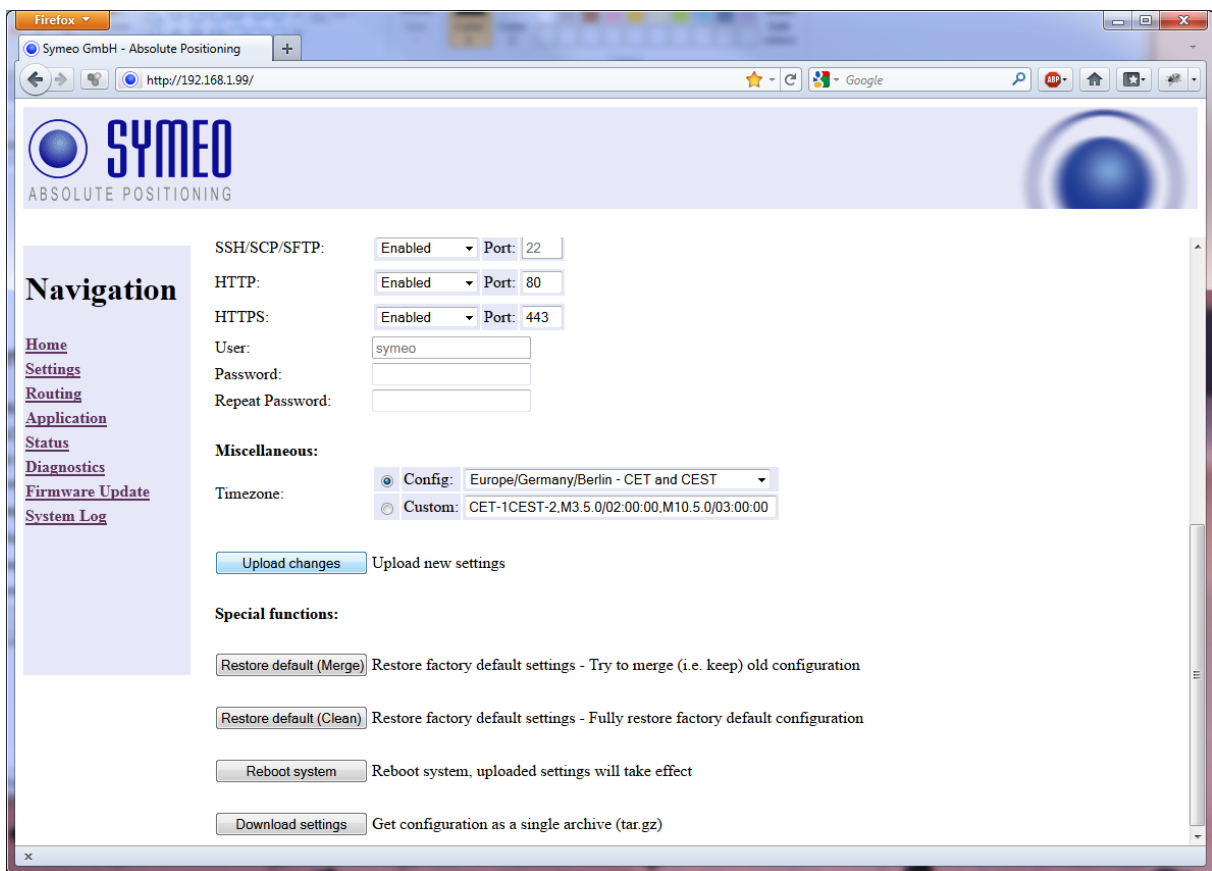
First, the main web page will show up. If you choose 'Settings' in the navigation pane (left), you will be asked for username and password.

Default user name is 'symeo' and password is '54all2u'.





Here, you can change the basic network settings.



After having edited any setting, you need to execute 'Upload changes' and after that, you need to 'reboot' the STU.

New settings will only take effect after the unit has restarted.

5 Appendix A: Agency certifications

United States (FCC) and Canada (Industry Canada)

Radiofrequency radiation exposure Information:

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

i Note

Changes or modifications made to this equipment not expressly approved by SYMEO GmbH may void the FCC/IC authorization to operate this equipment.

i Note

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

- ⇒ this device may not cause harmful interference, and
- ⇒ this device must accept any interference received, including interference that may cause undesired operation.

i Note

Installation:

All installation, repair and servicing work must be carried out by qualified and trained technicians!

Repairs:

Repairs to the device must be carried out by authorized technicians. Unauthorized opening and incorrect repairs could result in severe danger to the user (danger of electric shock, radiated energy, fire hazard).

i Note

Installation of UMTS antenna and WiFi antenna:

All Antennas must be installed in a manner that provides a minimum separation distance of 20 cm or more between the antenna and persons and must not be co-located or operate in conjunction with any other antenna or transmitter to satisfy FCC RF exposure requirements for mobile transmitting devices.

United States (FCC)

i Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ⇒ Reorient or relocate the receiving antenna.
- ⇒ Increase the separation between the equipment and receiver.
- ⇒ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ⇒ Consult the dealer or an experienced radio/TV technician for help

Canada (Industry Canada)

i Note

This Class [B] digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.