

Xcom-GSM / Xcom-LAN

Remote communication sets for Xtender systems

User Manual



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1 INTRODUCTION

1.1 REMOTE COMMUNICATION SET FOR XTENDER SYSTEMS

The remote communication sets Xcom-LAN or Xcom-GSM allow you to view, configure and control Xtender systems from anywhere in the world. With a simple Internet access on a Smartphone, a tablet or a notebook, your installation is accessible through a virtual remote control on Studer's dedicated web portal. This virtual remote control's interface is designed to resemble the standard remote control RCC-02/-03 and offers the same functionality as if on-site. By keeping the same interface as the RCC-02/03, managing the system is easy and familiar.

All information and warning messages are listed on the server and can be used as a trigger to send messages by E-mail or SMS. Access to the web portal can easily be given to a third part if assistance is needed to analyse or configure a system.

Two solutions are provided to access the virtual remote control:




Xcom-LAN, for systems connected to a wired Local Area Network giving access to Internet.

Xcom-GSM, for systems with no available LAN but access to the GSM network, either by GPRS (worldwide) or by 3G (WCDMA).

The present manual is valid for both the Xcom-LAN and Xcom-GSM remote communication sets. Before installation of the communication system, carefully read this user manual and proceed thereafter with the installation and configuration as explained in the following chapters.

For further information on the other devices included in these sets, please refer to their respective user manuals.

1.2 CONVENTIONS

	This symbol is used to indicate the presence of a dangerous voltage that is sufficient to constitute a risk of electric shock.
	This symbol is used to indicate a risk of material damage and/or the cancellation of the guarantee.
	This symbol is used to indicate a procedure or function that is important for a safe and correct use of the equipment. Failure to respect these instructions may lead to the cancellation of the guarantee or to a non-compliant installation.

1.3 WARRANTY AND LIABILITY

During production and assembly, each Xcom-232i undergoes several controls and tests. These are carried out in full respect of fixed procedures. Each Xcom-232i is given a serial number allowing a perfect follow-up of the controls, in conformity with the specific data of every device. For this reason, it is very important to never remove the descriptive sticker bearing the serial number. The production, the assembly and tests of each Xcom-232i are entirely carried out in our factory in Sion (CH). The warranty for this product depends on the strict application of the instructions in this manual.

1.3.1 Exclusion of warranty

No warranty claims will be accepted for damages caused by handling, operation or actions that are not described in this manual. Damages arisen from the following events are not covered by the warranty:

- Overvoltage on the device.
- Liquid in the device or oxidation due to condensation.
- Damage resulting from a fall or a mechanical shock.
- Modifications carried out without the explicit authorization of Studer Innotec SA.
- Nuts or screws partially or insufficiently tightened during installation or maintenance.

- Damage due to atmospheric overvoltage (lightning).
- Damage due to transport or inappropriate packaging.
- Disappearance of original identification marks.

1.3.2 Disclaimer of liability

Installation, commissioning, use and maintenance of this device cannot be supervised by Studer Innotec SA. For this reason, we do not accept any liability for damages, costs or losses generated either by an installation that is not conforming to the prescriptions, by a defective operation or by poor maintenance. The use of this device is under the responsibility of the end-user. This device is neither designed nor guaranteed for the supply of life support applications or any other critical application with potential risks for human beings or for the environment. We shall assume no liability for patent infringement or other third party rights involved in the use of this device.

1.3.3 Compatibility

Studer Innotec SA guarantees the compatibility of the software updates with the hardware for one year, starting from the date of purchase. The updates are no longer guaranteed beyond this date and a hardware upgrade may be required. Please contact your reseller for any additional information on compatibility.

1.4 SAFETY PRECAUTIONS

1.4.1 Generalities

Carefully read all safety instructions before proceeding with the installation and commissioning of the device. Failure to follow these instructions might constitute a lethal physical danger but can also damage the functionalities of the device. Therefore, this manual should be kept close to the device.

	<p>For any installation, the local and national norms and regulations in force must be strictly followed.</p>
---	---

1.4.2 Warnings

- The installation and commissioning of the communication sets must be entrusted to skilled and qualified personnel perfectly aware of the safety precautions and local rules in force.
- All components connected to this device must be conforming to the laws and regulations in force. Persons without a written authorization from Studer Innotec SA are forbidden to do any changes, modifications or repairs whatsoever. Regarding authorized modifications and replacements, only genuine components shall be used.
- This device is meant for indoor use only and must under no circumstances be exposed to rain, snow or any other humid or dusty environment.
- If used in motor vehicles, this device must also be protected against vibrations by shock absorbing components.

2 EC DECLARATION OF CONFORMITY

The communication sets Xcom-LAN/-GSM described in this manual meets the requirements specified in the following EC directives and norms:

- Low voltage directive 2006/95/CE: EN 60950:2005
- EMC directive 2004/108/CE: EN61000-6-1:2005
- RoHS directive: 2011/65/UE



CH - 1950 Sion, April 2015

Studer Innotec SA (R. Studer)

A handwritten signature in black ink, appearing to read "R. Studer", written over a light grey rectangular background.

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3 CONTENTS OF THE REMOTE COMMUNICATION SETS XCOM-GSM AND XCOM-LAN

The remote communication sets are delivered with the material listed below:

1 Xcom-232i



2m communication cable



1 MicroSD with adaptor



0.25m serial cable



1 Xcom-232i user manual



1 Xcom-GSM/Xcom-LAN user manual (you are reading it)



Mounting plate



1 3G cellular modem (WCDMA)



	Xcom-GSM	Xcom-LAN
1 Xcom-232i	X	X
2m communication cable	X	X
1 MicroSD with adaptor	X	X
0.25m serial cable	X	X
1 Xcom-232i user manual	X	X
1 Xcom-GSM/Xcom-LAN user manual (you are reading it)	X	X
Mounting plate	X	X
1 3G cellular modem (WCDMA)	X	

1 external antenna



0.5m power supply cable RJ45-Jack



Sliding pin



1 3G cellular modem datasheet



1 Ethernet gateway



3m Ethernet cable



1 Ethernet gateway quick installation guide



	Xcom-GSM	Xcom-LAN
1 external antenna	X	
0.5m power supply cable RJ45-Jack	X	
Sliding pin	X	
1 3G cellular modem datasheet	X	
1 Ethernet gateway		X
3m Ethernet cable		X
1 Ethernet gateway quick installation guide		X

4 MOUNTING AND INSTALLATION

Both the Xcom-GSM and the Xcom-LAN are powered through the Studer proprietary bus.



The distance between the Xcom-232i and the device supplying it (Xtender, VarioTrack or VarioString) **should not exceed 10 metres** in order to avoid excessive voltage drop in the wire, which could affect the functionality of the whole system.

4.1 INSTALLATION OF THE XCOM-232I

Follow the set-up instructions in the Xcom-232i user's manual.

When the Xcom-232i has been installed correctly according to the procedures mentioned in its manual, the remaining installation procedure depends on the chosen remote communication set.



If a Xcom-232i is connected to another compatible device (Xtender, VarioTrack, VarioString, BSP, RCC) on the same communication bus, it is highly recommended to make a software update in order to guarantee all functionalities of the system.



If the installation contains more than one remote control (RCC) or Xcom-232i, each remote control and each Xcom-232i must be updated separately.



Configuration of the Xcom-232i will be carried out after the installation of the selected gateway (GSM or LAN) in accordance with chapter 6.

5 WIRING

5.1 XCOM-GSM SET

In order to install the Xcom-GSM set, there need to be sufficient GSM network coverage on the site of the Xtender system. The network also has to conform to one of the following standards: GSM / GPRS / EDGE / UMTS / HSDPA / HSUPA / HSPA on these frequencies 850 / 900 / 1800 / 1900 / 2100 MHz.

The 3G modem supplied by Studer Innotec requires the installation of a SIM card (not provided) that allows data transfer from a local service provider. Please refer to the chap. 5.1.2 when installing the SIM card.

The volume of data transferring via the communication system to Studer's server will depend on its utilisation (frequency and duration of use) but it will necessitate at least 2MB data per month. When the remote communication is in use, the volume of data transferred is approximately 30kB per minute. When the data logger function is activated, the additional volume of daily data may represent up to 1MB per day, depending on the number of devices present on the Studer communication bus.



The system will not function properly with any other modems than the ones stated above, even if they are correctly connected to the Xcom-232i.

5.1.1 Mounting place

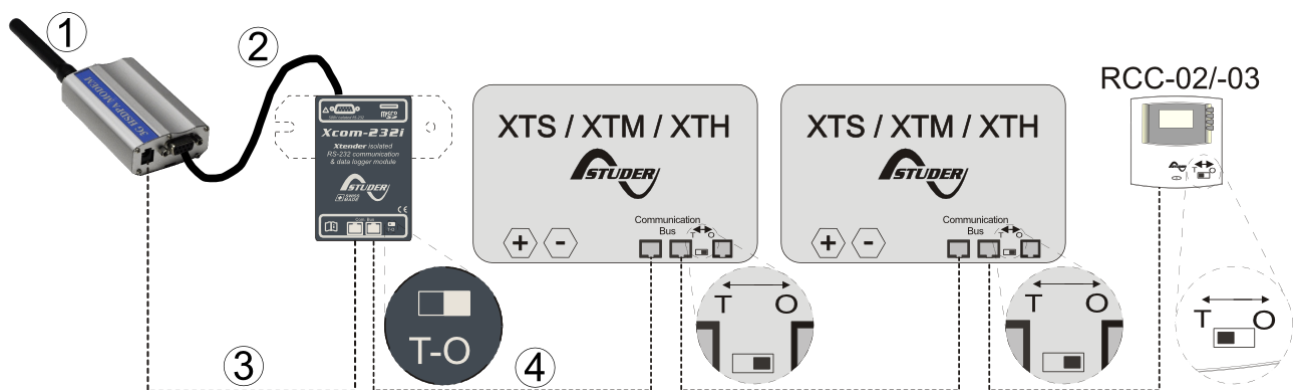
The GSM modem should be mounted close to the Xcom-232i, maximum 25cm apart, and fixed with two separate sliding pins into the rail of the GSM enclosure.

5.1.2 Installing the SIM card

Eject the SIM card tray, situated close to the antenna connector, by pushing the yellow button next to it. Place the SIM card on the tray and reinsert it.

5.1.3 Connecting the GSM modem

- 1) Connect the antenna to the modem
- 2) Connect the serial cable between the modem and the Xcom-232i
- 3) Connect the power supply cable between the modem and the Xcom-232i
- 4) Connect the Studer communication cable between the Xcom-232i and the installation




5.1.4 Set the terminations

It is very important to set the terminations orrectly for the functioning of the ystem. With one device in the system the termination on the Studer dvce should be put to T as in "Terminated". With more than one device in the system all Studer devices should be put to O as in "Open" apart from the devices at the end of the communication chain.These devices should be put to T as in "Terminated".

	The termination switch next to the two RJ45 connectors on the Xcom-232i must be set in position T.
--	--

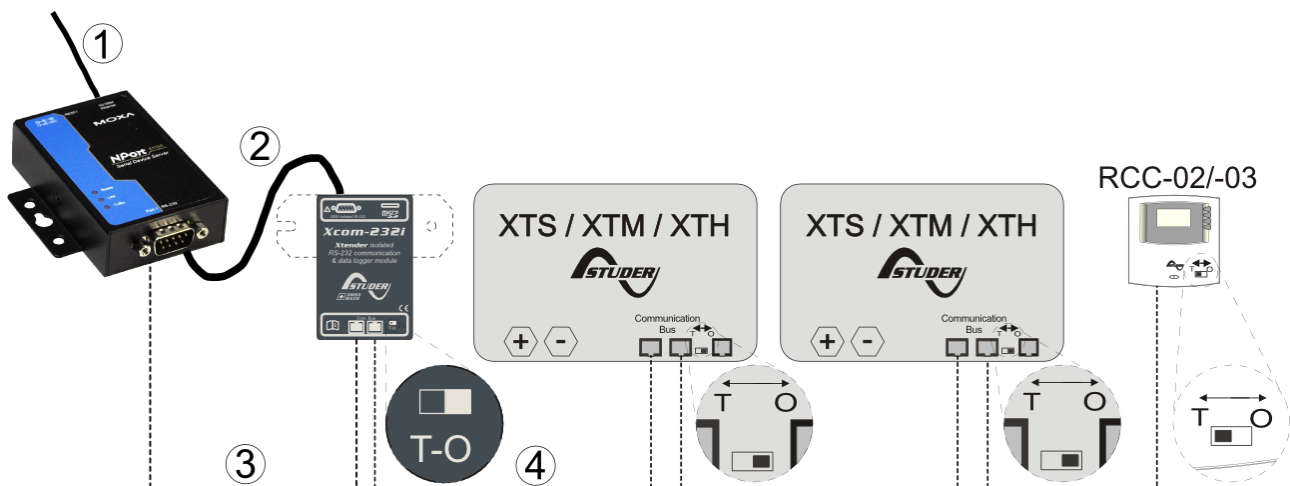
5.1.5 Mounting place

The Ethernet gateway should be mounted on a smooth surface using the mounting holes as shown in its quick installation guide. The distance between the Xcom-232i and the Studer system should not exceed 10 meters. The distance between the Xcom-232i and the Ethernet gateway should not exceed 0.25 m.

	<p>The Ethernet gateway casing is grounded to the battery minus. Pay attention if you place this device on a metallic surface that is grounded to another potential level (for example + battery in telecom applications).</p>
---	--


5.1.6 Connecting the Ethernet gateway

- 1) Connect the Ethernet cable between the Ethernet gateway and the router
- 2) Connect the serial cable between the Ethernet gateway and the Xcom-232i
- 3) Connect the power supply cable between the Ethernet gateway and the Xcom-232i
- 4) Connect the Studer communication cable between the Xcom-232i and the Xtender system



5.1.7 Set the terminations

It is very important to set the terminations orrectly for the functioning of the system. With one device in the system the termination on the Studer device should be put to T as in "Terminated". With more than one device in the system all Studer devices should be put to O as in "Open" apart from the devices at the end of the communication chain. These devices should be put to T as in "Terminated".

	<p>The termination switch next to the two RJ45 connectors on the Xcom-232i must be set in position T.</p>
---	---

6 CONFIGURING THE XCOM-232I

For the installation to function properly, the Xcom-232i must first be configured as indicated, step-by-step, in this chapter.



The use of a RCC-02/-03 will facilitate the installation of the Xcom-232i. It will show messages in case of errors.



When generating the configuration file, the "XCOM Configurator" executable deletes the contents of the folder 02. Therefore only one configuration file could be on the SD card. Please use a blank SD card (for example, the one supplied with the kit).

6.1 INSERT THE SD CARD

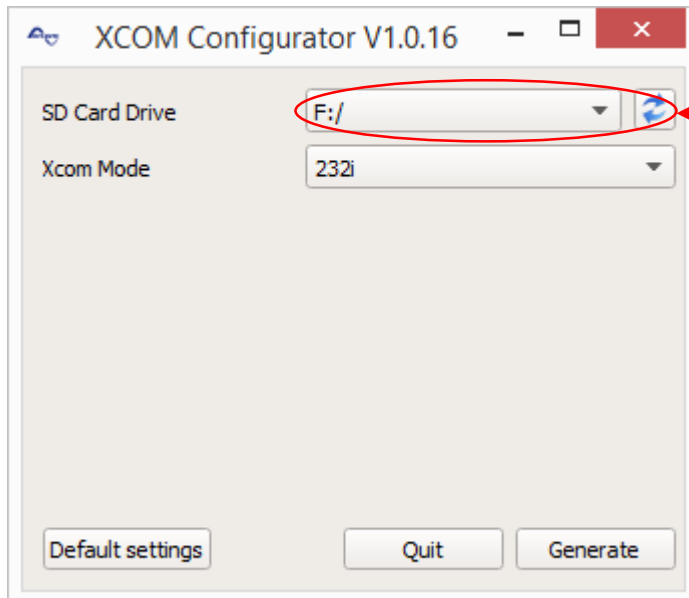
Insert the SD card into your computer, open an explorer window, go through the SD card drive and run the "XCOM Configurator" executable available in the folder "Tools".



The Xcom configurator is also available to download for free from Studer Innotec's website under Support/Download Centre/Software and Updates.

6.2 SELECT THE SD CARD DRIVE

Choose the drive where the SD card is inserted.



Choose the SD card drive

Figure 6.1 : Choose the drive

6.3 SET THE PARAMETERS

6.3.1 For Xcom-LAN

To use the Xcom-232i with the Ethernet gateway, choose "LAN" as Xcom mode. No other parameters are required. The gateway is already configured. Press "Generate" to save the parameter settings.

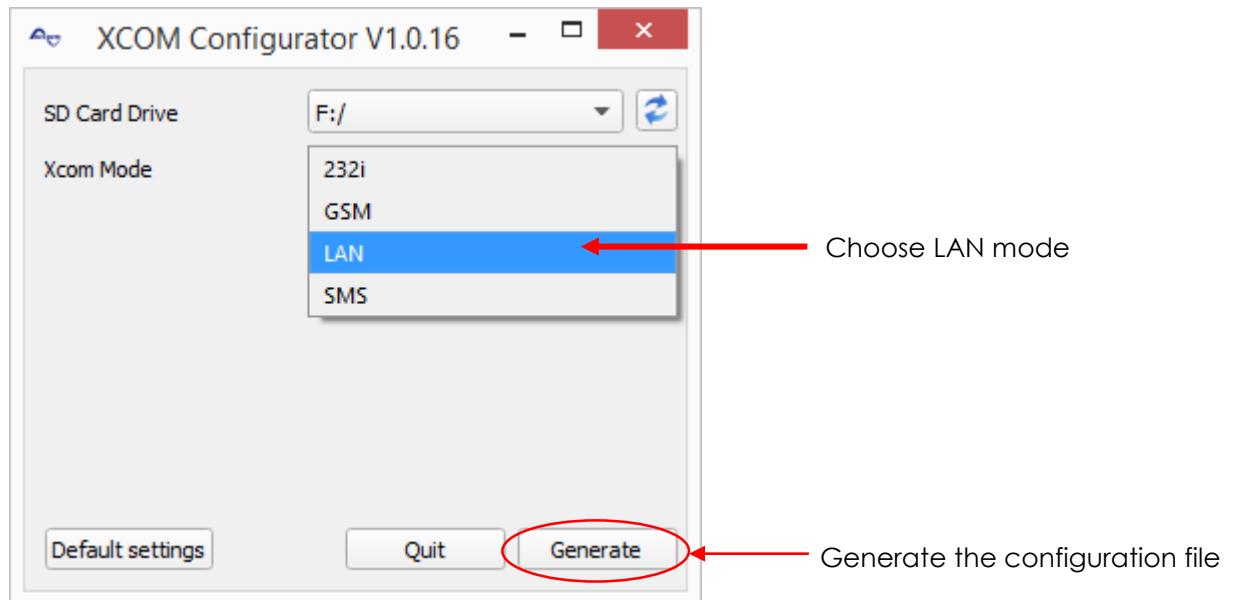


Figure 6.2 : Choose LAN mode

After the generation, go to chapter 6.4.

6.3.2 For Xcom-GSM

To use the Xcom-232i with the GSM modem, choose "GSM" as Xcom mode.

Then enter the "Access Point Name" (APN) of your internet service provider (ISP). If your ISP requires a username and a password, use them to fill in the fields "Access Point User Name" and "Access Point Password". If no password is required, leave the field blank.

If the SIM card has a PIN code, use it to fill in the field "PIN Code". If there is no PIN code, leave the field blank. Press "Generate" to save the parameter settings.

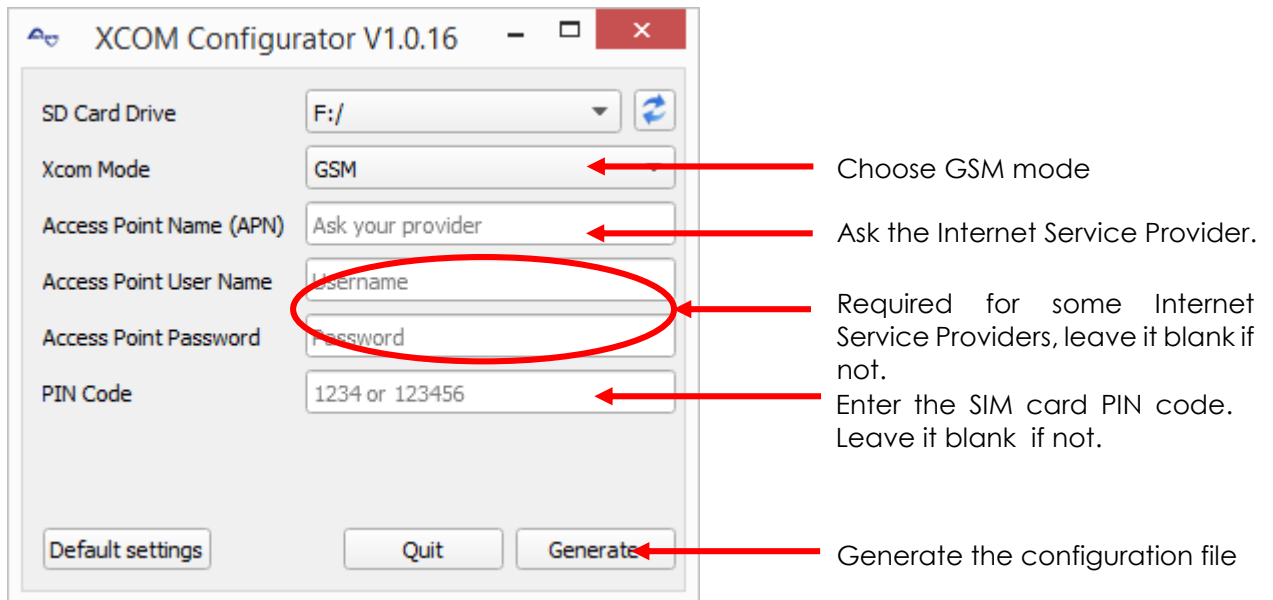


Figure 6.3 : Choose GSM mode

Example for Swisscom in Switzerland:

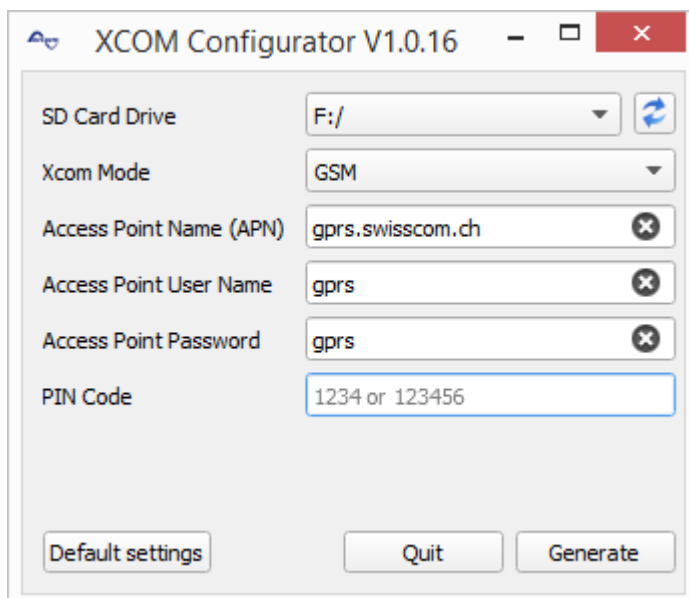


Figure 6.4 : Example with parameters for Swisscom

6.4 GENERATE THE CONFIGURATION FILE

If the parameters were successfully set, this message box will appear:

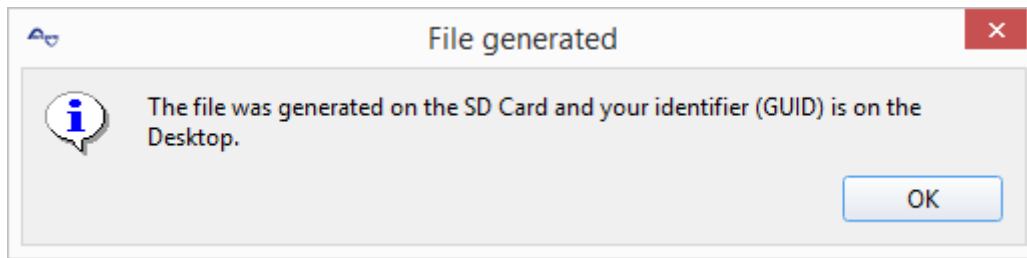


Figure 6.5 : Parameters set and a successful generation of GUID

Close the message box and a text file with your identifier (GUID) will appear. This file is saved on your "Desktop" or in "My documents".

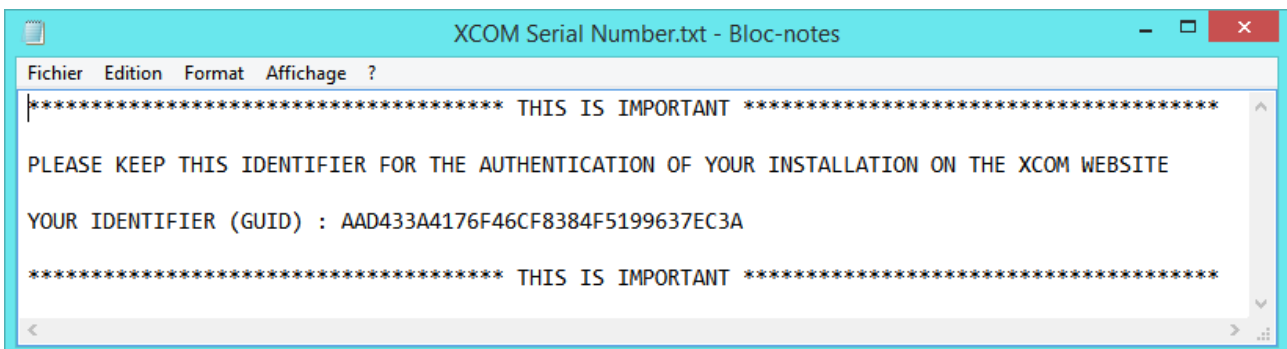


Figure 6.6 : Generated GUID file

If an error occurs during the file generation, this message box will appear. Please verify that the selected drive for the SD card is correct. If an adaptor is used for the SD card, please verify that there is no lock protection.

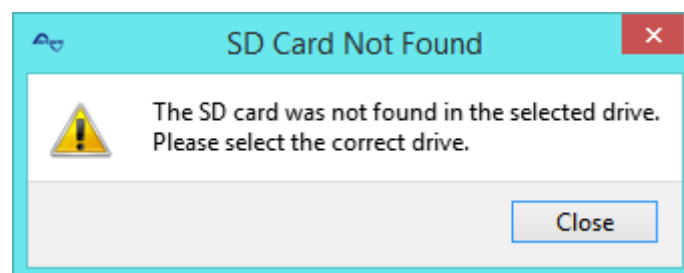


Figure 6.7 : SD card not found

6.5 REMOVE THE SD CARD

Remove the SD card from the computer.

6.6 SETUP THE PARAMETERS IN THE XCOM-232i

Insert the SD card into the Xcom-232i.

The setup process will start automatically and normally takes 1 second.

When the LED stops blinking red, the setup is finished.



Figure 8 : Inserting the SD card



The Xcom-232i needs to be powered during the setup process. Otherwise, the configuration will not be taken into account.



If the setup is successful and you have a RCC, the product's name and its GUID can be read under "System info" on the RCC.

6.7 XCOM CONNECTS TO THE SERVER

When the parameters are set and applied, the Xcom-GSM or Xcom-LAN will automatically connect to the server and send a confirmation message to the RCC.

If there is no message, the Xcom is not connected to the server.



If the Xcom is not connected to the server, see chapter 8 for further information.

6.8 CREATION OF YOUR ACCOUNT

To access the installation remotely, the web portal <https://xcom.studer-innotec.com> is provided free of charge.

To set up a user account on this web portal, please follow the instructions below. If you already have an account, please proceed to chapter "6.10 Registration of installation".

1. On the first page, click on the link "Create an account".

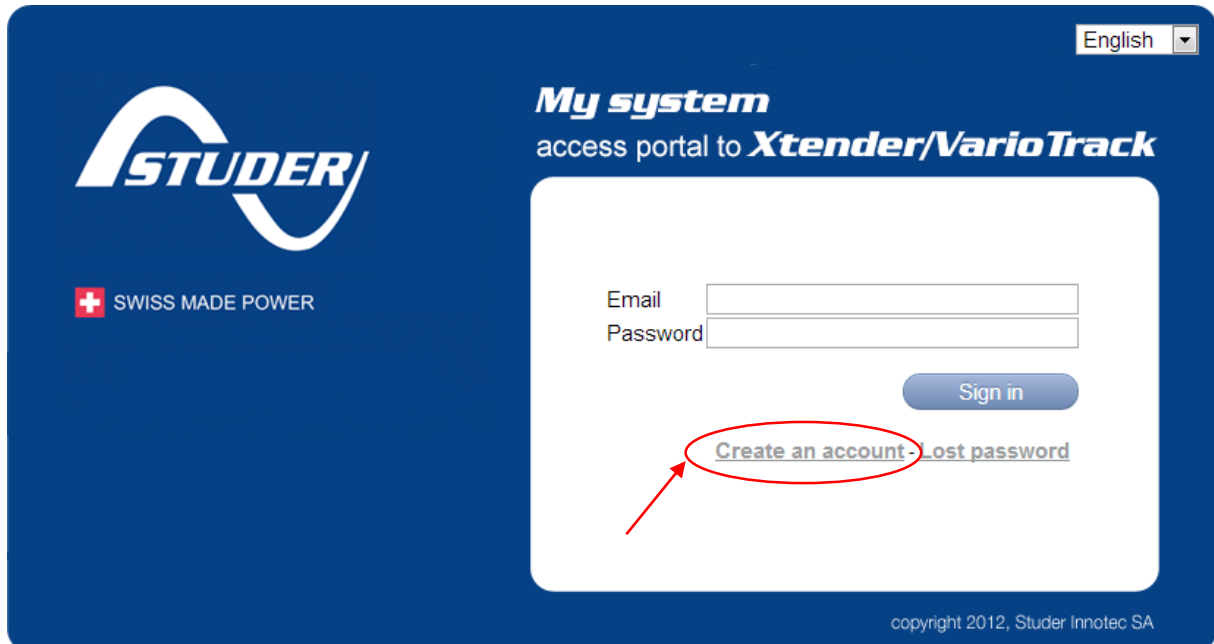


Figure 6.9 : Link "Create an account"

2. Enter your last name, first name, email address and the password of your choice.



6.10 : Insert account information


3. Read through and accept the terms of service.
4. Click on the button "Save", to register your information and your user account will be created.
5. You will receive a confirmation email with an activation link. You need to click on the link in order to activate your user account.

6.9 DEMO INSTALLATION

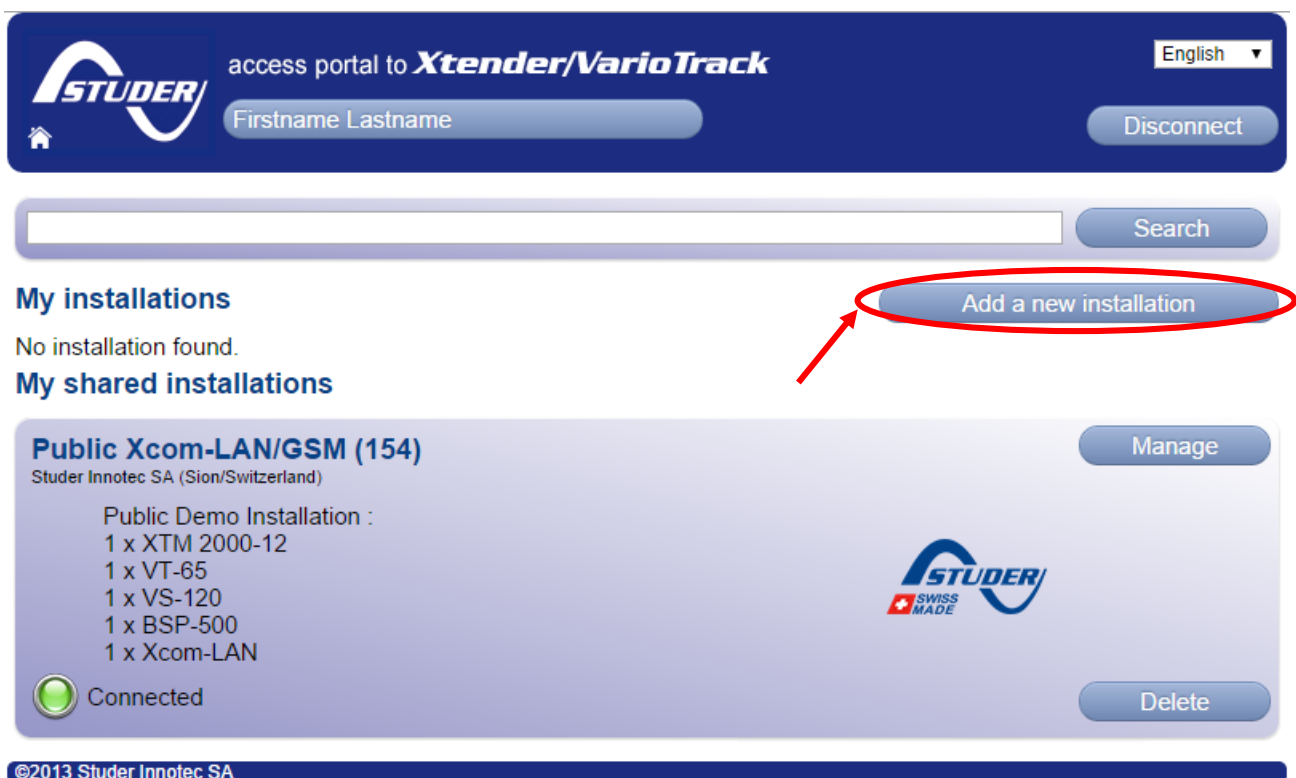
On the first page of the Studer access portal, you will find, by default, a shared installation to illustrate the functioning of an installation. It is possible to delete this installation from the view, simply by clicking on the "Delete" button.

6.10 REGISTRATION OF INSTALLATION

In order to register your installation for remote access you need the unique identifier (GUID) previously generated for the installation, see chapter 6.4.

	To successfully register your installation, the Xcom-LAN/-GSM must already be connected to the server.
---	--

1. Click on the button "Add a new installation".



English

STUDER access portal to *Xtender/VarioTrack*

Firstname Lastname Disconnect

Search

My installations

No installation found.

My shared installations

Public Xcom-LAN/GSM (154) Manage

Studer Innotec SA (Sion/Switzerland)

Public Demo Installation :

- 1 x XTM 2000-12
- 1 x VT-65
- 1 x VS-120
- 1 x BSP-500
- 1 x Xcom-LAN

Connected

STUDER SWISS MADE

Delete

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6.11 : "Add a new installation" button

2. Enter the installation's identifier (GUID), give it a name and press register to save the information.

STUDER access portal to *Xtender/VarioTrack* English

Firstname Lastname Disconnect

Register new device

GUID ← Enter the installation's GUID

Name ← Enter the installation's name

Press the "Register" button to save the installation → Register

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6.12 : Register a new installation

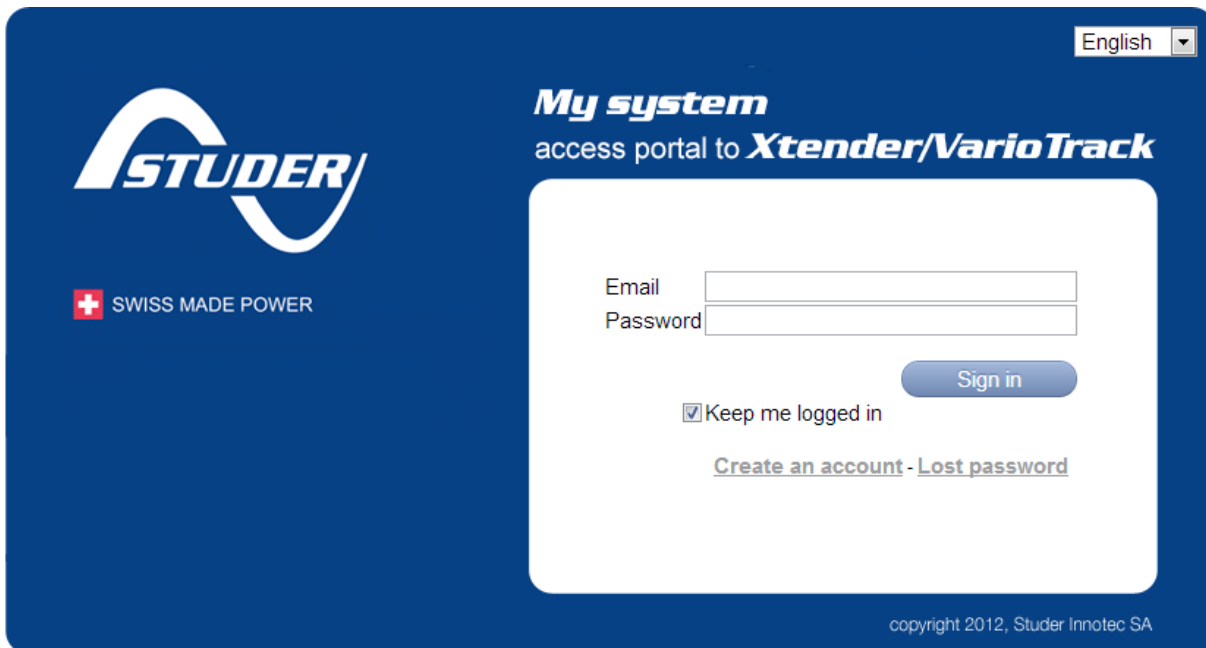
6.11 INSTALLATION COMPLETED

The installation is now completed and you can access your system from anywhere with internet access through Studer's web portal <https://xcom.studer-innotec.com>

7 XCOM PORTAL

The user interface has been designed to be as simple and intuitive as possible.

7.1 AUTHENTICATION PAGE



English

STUDER
SWISS MADE POWER

My system
access portal to *Xtender/VarioTrack*

Email
Password

Sign in

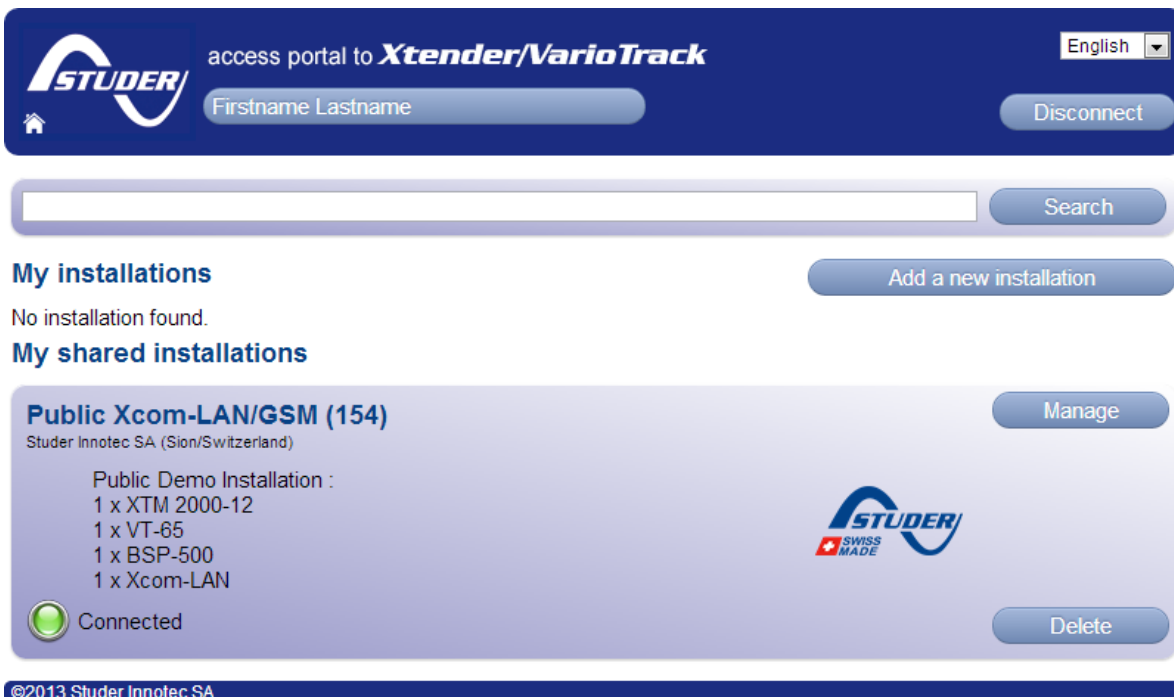
Keep me logged in

[Create an account](#) - [Lost password](#)

copyright 2012, Studer Innotec SA

By ticking the box "Keep me logged in" the user will remain logged in and will arrive directly at the dashboard when returning to the Xcom portal. Otherwise, the session will end automatically after a certain time or when you close your Internet browser.

7.2 HOME PAGE



STUDER access portal to *Xtender/VarioTrack* English

Firstname Lastname Disconnect

Search

My installations Add a new installation

No installation found.

My shared installations

Public Xcom-LAN/GSM (154) Manage
Studer Innotec SA (Sion/Switzerland)

Public Demo Installation :
1 x XTM 2000-12
1 x VT-65
1 x BSP-500
1 x Xcom-LAN

Connected Delete

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On the access portal, all installations available to the logged-in user are listed under two categories.

- **My installations;** installations added to the system by the logged-in user.
- **My shared installations;** installations to which the logged-in user has been granted access.

Find a specific installation by scrolling the list or by using the search-field. Access the installation management page by pressing the "Manage" button. An installation can also be deleted by pressing the "Delete" button.

7.3 INSTALLATION MANAGEMENT PAGE

This page is divided into five tabs whose functions are described below:

7.3.1 Installation

STUDER access portal to *Xtender/VarioTrack* English

Firstname Lastname Disconnect

Public Xcom-LAN/GSM

Installation Remote Control Datalogger Sharing Messages Notifications

Name Public Xcom-LAN/GSM

Location Studer Innotec SA (Sion/Switzerland)

Description Public Demo Installation :
 1 x XTM 2000-12
 1 x VT-65
 1 x VS-120
 1 x BSP-500

ID 154

GUID 0C95EF1498734D8C8069DA7E79D74E2D

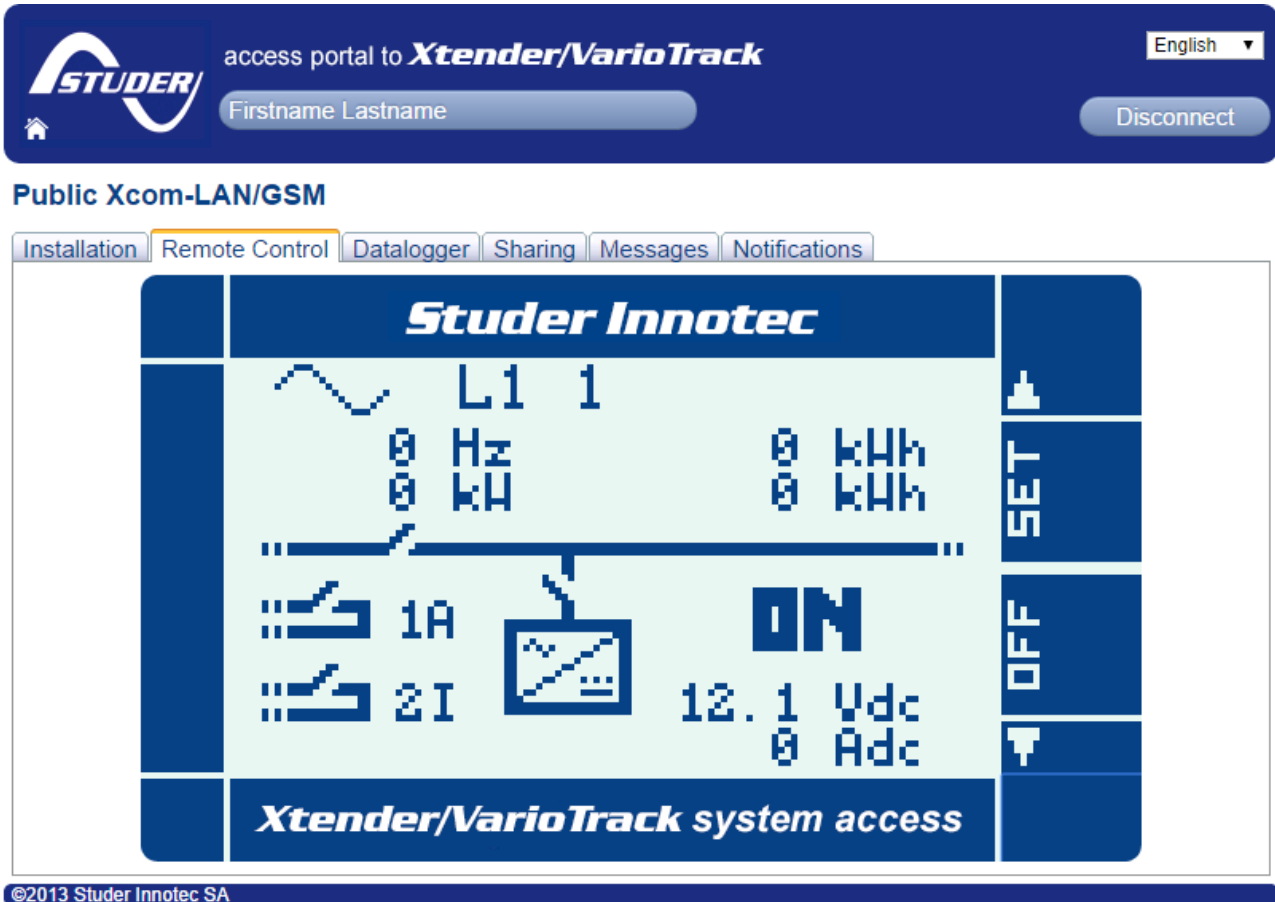
Picture

STUDER
SWISS MADE

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This tab contains the complete description of your system. Add a name, location and a description of the components or behaviour of the system. You can also add a picture to easily identify the system in your list.

7.3.2 Remote Control



This tab allows you to take control over the system as if you were using an RCC-02/-03.

You have to click in the centre of the window to start the remote control and then you obtain the same screen and button functionality as with the RCC-02/-03. You can see how the system works, you can change its settings and you can also download the datalogger (see chap. 7.3.3). Due to variations in communication speed, the delay between a "click" and the resulting action might differ. This prompts the user to wait for the requested display before making the next command. It can also happen that the screen refresh is done after two automatic refreshes, slowing all navigation procedures. This is normal, so please be patient.

7.3.3 Datalogger

access portal to **Xtender/VarioTrack** English

Firstname Lastname Disconnect

Public Xcom-LAN/GSM

Installation Remote Control **Datalogger** Sharing Messages Notifications

September							October								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
36	31	1	2	3	4	5	6	40	28	29	30	1	2	3	4
37	7	8	9	10	11	12	13	41	5	6	7	8	9	10	11
38	14	15	16	17	18	19	20	42	12	13	14	15	16	17	18
39	21	22	23	24	25	26	27	43	19	20	21	22	23	24	25
40	28	29	30	1	2	3	4	44	26	27	28	29	30	31	1
41	5	6	7	8	9	10	11	45	2	3	4	5	6	7	8

Select the days you want to download. **Download** xx = selected

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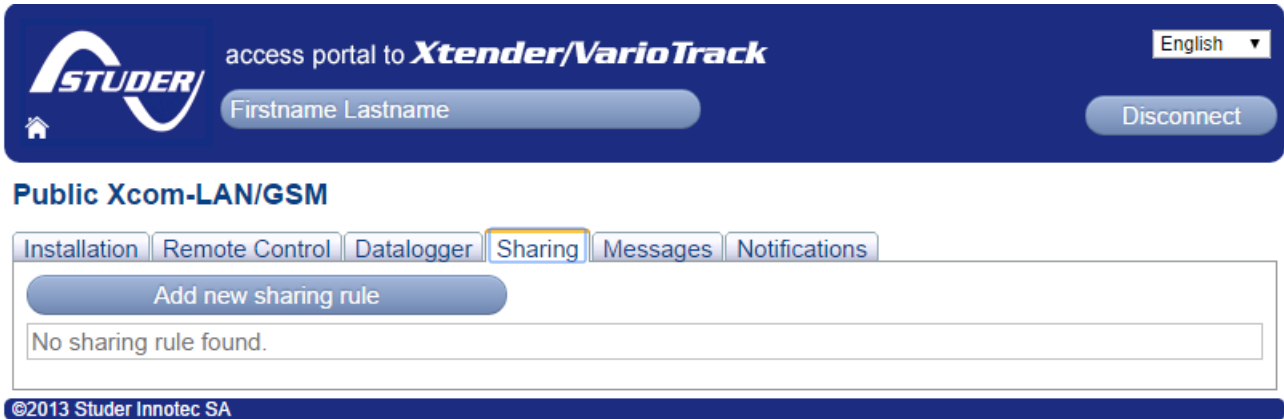
Up to the past 30 days log-files are available to download from the Xcom portal. The user can easily select the days to download and then simply click on the "Download" button.

By default, the last 30 available days are selected.

When the data is downloaded, it can be analysed with the "Xtender Data Analysis Tool", available on Studer's website (<http://www.studer-innotec.com/support>).

You can also read the related application note (AN006 Data logger and Analysis tools) to see how to use the data logger tool.

7.3.4 Sharing



This tab shows all sharing rules for an installation and it allows you to give access to your installation to someone else. Once established, the sharing rules may be edited or deleted.

Add a new sharing

The screenshot shows a form titled "Add a new sharing". At the top, there is an "Email" input field. Below it, under the heading "Rights", there are seven checkboxes, all of which are checked: "Installation", "Remote Control", "Sharing", "Datalogger", "Messages", "Notifications", and "Web Service". At the bottom right of the form, there are two buttons: "Back" and "Save".

You may easily add a sharing rule by clicking on the button "Add new sharing rule" and inserting the email address of the designated person. The email address should first be registered on the Xcom portal (it is possible for everyone to register for free to the Xcom portal).

7.3.5 Messages

access portal to *Xtender/VarioTrack*
English ▾

Firstname Lastname
Disconnect

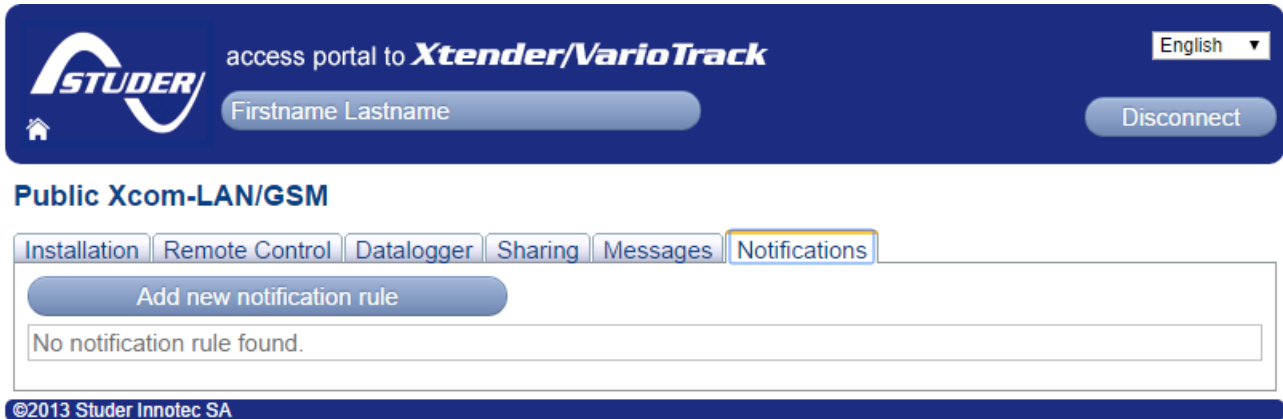
Public Xcom-LAN/GSM

[Installation](#) |
 [Remote Control](#) |
 [Datalogger](#) |
 [Sharing](#) |
 [Messages](#) |
 [Notifications](#)

Message	Source	Code	Date
AC-In synchronization in progress	XT3	3	05:42:06 22.09.2014
AC-In synchronization in progress	XT2	3	05:42:06 22.09.2014
AC-In synchronization in progress	XT1	3	05:42:06 22.09.2014
AC-In synchronization in progress	XT1	3	05:42:06 22.09.2014
AC-In synchronization in progress	XT1	3	05:42:06 22.09.2014
Input voltage AC-In too low	XT1	7	03:02:24 22.09.2014
Input voltage AC-In too low	XT3	7	03:02:24 22.09.2014
Input voltage AC-In too low	XT2	7	03:02:24 22.09.2014
Input voltage AC-In too low	XT1	7	03:02:24 22.09.2014
Input voltage AC-In too low	XT1	7	03:02:24 22.09.2014
AC-In synchronization in progress	XT1	3	03:00:10 22.09.2014
AC-In synchronization in progress	XT2	3	03:00:10 22.09.2014
Your installation is already updated	RCC	52	18:23:28 18.09.2014
Please wait. Data transfer in progress	Xcom-232i	54	18:21:16 18.09.2014
The update is finished	RCC	51	18:19:18 18.09.2014
Datalogger function interrupted (SD card removed)	RCC	148	18:15:09 18.09.2014
Please wait. Data transfer in progress	Xcom-232i	54	18:06:41 18.09.2014
AC-In synchronization in progress	XT3	3	23:02:04 15.09.2014
AC-In synchronization in progress	XT3	3	23:02:04 15.09.2014
AC-In synchronization in progress	XT3	3	23:02:04 15.09.2014
AC-In synchronization in progress	XT3	3	23:02:04 15.09.2014
AC-In synchronization in progress	XT1	3	23:02:04 15.09.2014
AC-In synchronization in progress	XT2	3	23:02:04 15.09.2014
Input voltage AC-In too low	XT2	7	23:01:53 15.09.2014
Input voltage AC-In too low	XT3	7	23:01:53 15.09.2014
Input voltage AC-In too low	XT1	7	23:01:53 15.09.2014
Save parameter (1524)	RCC	63	13:57:51 15.09.2014
Save parameter (1524)	RCC	63	13:55:35 15.09.2014
Save parameter (1524)	RCC	63	13:45:52 15.09.2014
Save parameter (1526)	RCC	63	17:07:57 09.09.2014
Save parameter (1273)	RCC	63	19:54:55 31.08.2014
Save parameter (1272)	RCC	63	19:54:26 31.08.2014
Save parameter (1526)	RCC	63	06:41:14 17.08.2014
Save parameter (1525)	RCC	63	06:40:26 17.08.2014

This tab shows all messages from the Xcom-232i. These messages reflect the past performance of your installation and are not necessarily alarms or alerts.

7.3.6 Notifications

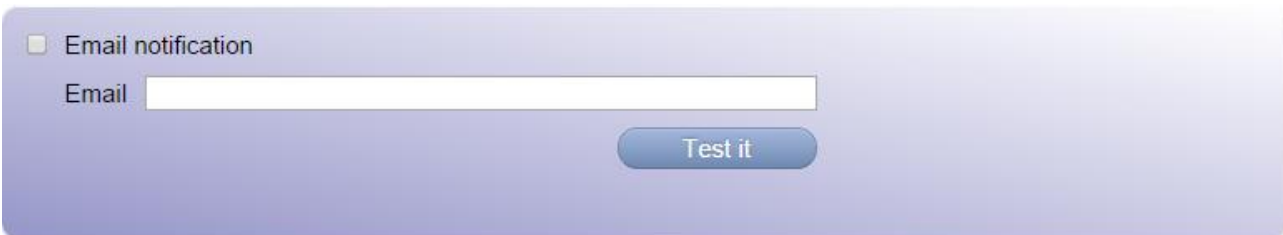


Under this tab it is possible to define different criteria for when and how to send system notifications. The generated alerts are sent either by SMS or by email.

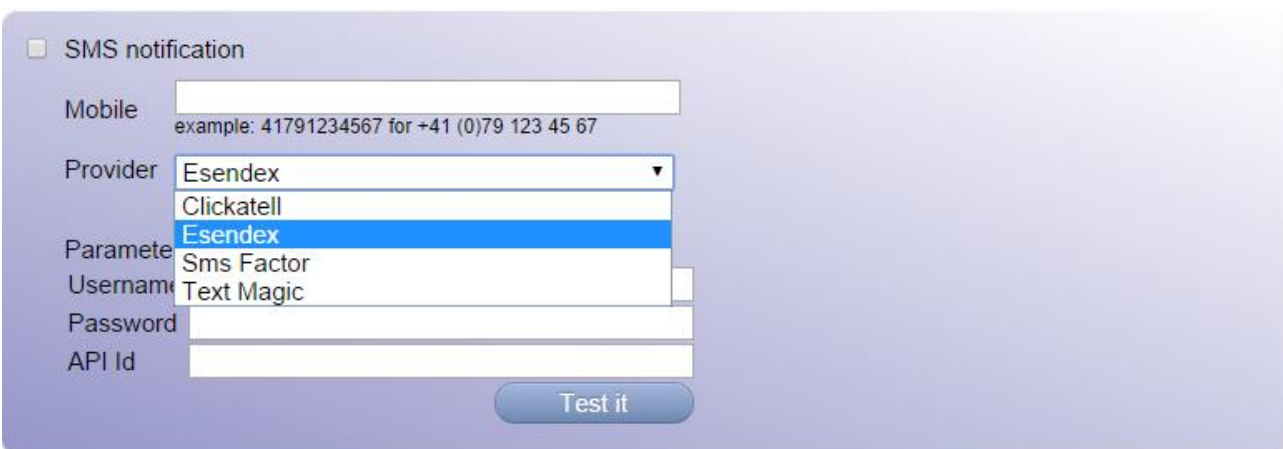
Generation of SMS alerts requires the provision of SMS credits from a supplier of this type of service (e.g. Clickatell, Esendex, Sms Factor, Text Magic).



The alerts are available in four languages (English, French, German and Spanish).



The email notification is activated by ticking the box in the upper left corner, and by filling in the desired email address in the field "Email".



The SMS notification is activated by ticking the box in the upper left corner and by filling out the required fields depending on your service provider.

Renotification deadline minutes

A message of the same type can not be sent before the indicated deadline.

To avoid repeated notifications of recurrent messages (for instance "AC-In synchronization in progress" for a 3-phase system), it is possible to use a notification delay that prevents notifications of the same type to be sent during a set period.

Lost connection deadline alert

minutes

The alert will be sent to the deadline. If in the meantime the XCOM reconnects, no alert will be sent.

It is possible to set an alarm in case the connection with the installation is lost. If the installation reconnects within the stipulated period, no alert will be sent. It is advisable to leave a 30-minute delay given that short disruptions in internet connectivity may occur with all internet service providers.

Message types to notify

<input type="checkbox"/>	Default message	User message
<input type="checkbox"/>	Battery low	<input type="text"/>
<input type="checkbox"/>	Battery too high	<input type="text"/>
<input type="checkbox"/>	Bulk charge too long	<input type="text"/>
<input type="checkbox"/>	Inverter overload SC	<input type="text"/>
<input type="checkbox"/>	Charger short circuit	<input type="text"/>
<input type="checkbox"/>	AC-in Energy quota	<input type="text"/>
<input type="checkbox"/>	Use of additionnal remote control	<input type="text"/>
<input type="checkbox"/>	Overtemperature EL	<input type="text"/>
<input type="checkbox"/>	Inverter overload BL	<input type="text"/>
<input type="checkbox"/>	Fan error detected	<input type="text"/>
<input type="checkbox"/>	Excessive battery voltage ripple	<input type="text"/>
<input type="checkbox"/>	Battery undervoltage	<input type="text"/>
<input type="checkbox"/>	Battery overvoltage	<input type="text"/>
<input type="checkbox"/>	Voltage presence on AC-out	<input type="text"/>
<input type="checkbox"/>	Check the clock battery	<input type="text"/>
<input type="checkbox"/>	Overtemperature TR	<input type="text"/>
<input type="checkbox"/>	Unauthorized energy source at the output	<input type="text"/>
<input type="checkbox"/>	Monthly autonomy test failed	<input type="text"/>
<input type="checkbox"/>	Weekly autonomy test failed	<input type="text"/>
<input type="checkbox"/>	Current over input limit, transfer opened	<input type="text"/>
<input type="checkbox"/>	No SD card inserted	<input type="text"/>
<input type="checkbox"/>	Master synchro missing	<input type="text"/>
<input type="checkbox"/>	Inverter overload HW	<input type="text"/>
<input type="checkbox"/>	Time security 1512 AUX1	<input type="text"/>

Choose which message types to receive notifications for by ticking the corresponding boxes. There is a possibility to customize the notification text in order to make it easier to understand for the receiver.

8 FREQUENTLY ASKED QUESTIONS (FAQ)



Please check that your Xcom-LAN/-GSM is up-to-date before reading this section.

8.1 LED STATES

8.1.1 3G modem LED


State	Indication
Off	Power OFF
Always on	Searching network
Slow blinking (800ms ON, 800ms OFF)	Registered to the operator network
Fast blinking (200ms ON, 200ms OFF)	Server connected and transmitting data

8.1.2 LAN gateway LEDs

LED name	LED colour	State	Indication
Ready	Red	Always on	Power is on and the NPort is booting up.
		Blinking	Indicates an IP conflict, or DHCP or BOOTP server is not responding properly
	Green	Always on	Power is on and the NPort is functioning normally.
		Blinking	The NPort has been located by the NPort Administrator's Location function.
	-	Off	Power is off, or a power error.
Link	Orange	Always on	10 Mbps Ethernet connection.
	Green	Always on	100 Mbps Ethernet connection.
	-	Off	Ethernet cable is disconnected
Tx/Rx	Orange	Always on	Serial port is receiving data.
	Green	Always on	Serial port is transmitting data.
	-	Off	No data is being transmitted or received through the serial port.

8.1.3 Xcom-232i LED

LED colour	State	Indication
Red	Blinks (Ton = 50 % Toff = 50 %)	Updating process. During the Xcom-232i updating process (after insertion of a MicroSD card containing the updates), the signalisation LED blinks in red with a cyclical ratio of 50 %.
	Always on	Error during update or back up of the data logger. If the Xcom-232i detects an error, the signalisation LED is continuously red.
	Blinks (Ton = 10 % Toff = 90 %)	MicroSD card full. If the Xcom-232i detects that the MicroSD card is full, the signalisation LED blinks in red with a cyclical ratio of 10 %.
Green	Always on	Data logging. When the data logging function is activated, the signalisation LED is green.
	Blinks continuously (Ton = 20 % Toff = 80 %)	Communication (via RS-232 connection). When the communication via the RS-232 connection is active, the signalisation LED blinks in green with a cyclical ratio of 20 %.
	Blinks 2x	In operation. The signalisation LED blinks in green twice when the Xcom-232i is in operation and none of the above mentioned states are indicated.
Orange	On 1.5s	Insertion of the SD card. When inserting an SD card, the signalisation LED is both red and green simultaneously for 1.5 seconds.

	<p>If several of the three states indicated by the red LED light occur simultaneously, they will be displayed in the following priority order:</p> <ul style="list-style-type: none"> • Update processing • Error during updating • MicroSD card full <p>If the two states indicated by the green LED light occur simultaneously, the signal indicating communication via RS-232 connection is reversed (Ton=80% Toff=20%).</p>
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8.2 XCOM-GSM

8.2.1 How much data will the Xcom-GSM use per month?

The basic data usage is about 2 Mega Bytes (MB or Mo) per month. If the Datalogger is enabled, the quantity of used data will depend on the size of the installation.

For example:

A small installation with:

- 1 Xtender
- 1 VarioTrack
- 1 BSP

will use about 8 MB per month.

A medium sized installation with:

- 3 Xtender
- 1 VarioTrack
- 2 VarioString
- 1 BSP

will use about 20 MB per month.

Maximum usage for an installation is about 60 MB per month. These calculations do not include the Remote Control usage.

8.2.2 My Xcom-GSM is well-configured, but doesn't connect to the server. What should I do?

The modem needs a lot of power to connect to the server. That is why we recommend to not exceed 10m of cable length and to place the modem as close as possible to the power supply device (Xtender, VarioTrack or VarioString).

8.2.3 I entered the wrong PIN code and the Xcom-GSM has blocked my SIM card. What should I do?

After 3 failed attempts, the modem blocks the SIM card and requires the PUK code for identification. You need to insert the SIM card in a phone and unlock it by entering the PUK code.

8.3 XCOM-LAN

8.3.1 I don't have a DHCP server in my network. What should I do?

By default, the Xcom-LAN is in DHCP/BOOTP mode. You can set a static IP address by accessing the gateway.

1. Open your browser
2. Enter the default IP address in the address bar (indicated on the back of the gateway)
3. Enter the password (default password: **xcomlan**)
4. Click on " Network Settings " in the navigation bar
5. Change IP configuration from "DHCP/BOOTP" to "Static"
6. Set IP address, netmask, gateway and DNS server
7. Click on " Submit "
8. Click on " Save/Restart "

8.3.2 My Xcom-LAN is connected to a company network. What should I do?

The TCP port 83 may be blocked due to security settings. Please change the outbound rule for this port.

8.3.3 My Xcom-LAN is well-configured and connects to the server, but I can't register it with the given GUID. What should I do?

It is possible the Moxa's TX counter is not working. If this counter is at zero, the Xcom's TX line is damaged and must be replaced. Please contact Studer Innotec support in order to replace your set.

8.4 XCOM PORTAL

8.4.1 I can't register my new installation. What should I do?

To register a new installation, the installation needs to be:

1. Configured correctly and in accordance with the user manual.
2. Have been connected to the server at least once.

In order to validate that the installation has been correctly configured, the Xcom ID card (see in the System Info menu in an RCC-02/-03 connected to the system) should indicate either Xcom-LAN for an installation with Xcom-LAN or Xcom-GSM for an installation with Xcom-GSM.

In order to validate that the connection with the installation is well established, check that the RCC displays the message "Server connected" when turning on the installation.

8.4.2 There are no datalogger files in the Datalogger tab. What should I do?

If the installation is new and the Micro SD card of the Xcom-LAN/-GSM is empty, it is normal that there are no files on the server.

To activate the automatic recovery of the Datalogger:

1. The Xcom-LAN/-GSM needs to have a software version higher than 1.5.36
2. The datalogger needs to be activated on the Xcom-LAN/-GSM (the green LED should be continuously lit).
3. The Xcom-LAN/-GSM needs to have a micro SD card inserted continuously



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