# How to configure and to install the Xcom-LAN

### Contents of the Xcom-GSM 1. Contents of the Acomication set



Xcom-232i

Cellular modem





Micro SD card Communication cable, 2m with adapter





Power supply cable Serial cable, 0.25m



Mounting plate for Xcom-232i



Sliding pin for mounting the modem

# Additional items needed



External antenna

Computer or mobile phone

SIM card



#### Network requirements

- Sufficient GSM network coverage on the site of the Xtender system
- Network standard: GSM / GPRS / EDGE / UMTS / HSDPA / HSUPA / HSPA
- Frequencies: 850 / 900 / 1800 / 1900 / 2100 MHz.

#### Data traffic

- At least 2MB data per month
- Up to 2MB per day if the datalogger function is activated. (see table in the FAQ section for further information.)

# Mount the different products within the Studer system

The products should be mounted on a smooth surface.

The distance between the Xcom-232i and the Studer system should not exceed 10 meters.

The distance between the Xcom-232i and the GSM modem is maximum 0.25m.

All cables you need are provided in the set.

# Enter SIM card into the modem

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.



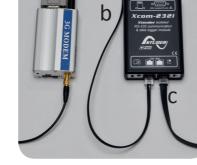
### Connect the antenna to 5. Connect the



# 6

- Connect the serial cable between the modem and the Xcom-232i
- Connect the power supply cable between the modem and the Xcom-232i
- Connect the communication cable between the Xcom-232i and the installation

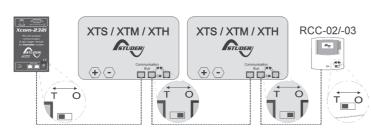




# Set the terminations

It is very important to set the terminations correctly for the functionning 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".

The termination switch next to the two RJ 45 connectors on the Xcom-232i must be set in position T.



# Turn on the power



### Insert the Micro SD card into the computer



# Take note of your GUID file

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". The unique identifier (GUID) is required to link your installation with your account on the Xcom portal. Keep it safe.

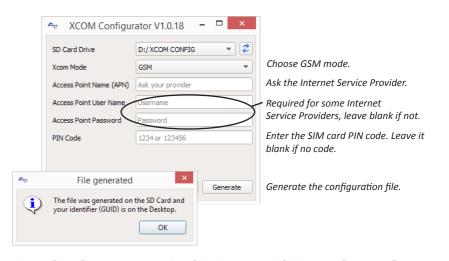


# Xcom connects to the server

After the parameters are set and applied, the Xcom-GSM 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. Use the FAQ at the opposite side of this Quick guide to see what could have gone wrong.



### Run the Xcom-configurator 10.



Choose "GSM" as Xcom mode. Then fill in the required fields. Press "Generate" to save the parameter settings. A window will automatically confirm the successful file generation.

### Insert the Micro SD card into • the Xcom -232i

Remove the SD card from the computer and insert it into the Xcom-232i. The setup process will start automatically and normally takes 1

When the LED stops blinking red, the setup is

### **ATTENTION!**

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



# The Xcom-GSM is sucessfully installed!

Register the installation at: https://xcom.studer-innotec.com in order to control it remotely with the Xcom-GSM.









# Quickguide

# Remote communication set for Xtender systems **Xcom-GSM**

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

this manual meet the requirements specified in the following EC directives and norms:

The communication set Xcom-LAN described in

#### EC DECLARATION OF CONFORMITY

shock absorbing components.

- or dusty environment.

  If used in motor vehicles, this device must also be protected against vibrations by
- This device is meant for indoor use only and must under no circumstances be exposed to rain, snow or any other humid
- All components connected to this device must be conforming to the laws and regulations in force. Persons without a written suthorization 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 meast for indoor use of the statements and replacements are successful to the statements only genuine components shall be used.
- The installation and commissioning of the communication sets must be entrusted to skilled and qualified personnel perfectly aware of the safety precautions and local
  - Warnings

rules in force.

followed.

For any installation, the local and national norms and regulations in force must be strictly

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.

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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.

#### ompatibility

Installation, commissioning, use and maintenance of this device cannot be supervised by and cell this device cannot be supervised by 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 mor 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.

#### Disclaimer of liability

- marks.
- packaging.

   Disappearance of original identification
- (lightning).

  Damage due to transport or inappropriate
- nance.

   Damage due to atmospheric overvoltage
- Modifications carried out without the explicit authorization of Studer Innotec SA.

  Nuts or screws partially or insufficiently tightened during installation or mainte-
- Damage resulting from a fall or a mechanical shock.
  - Liquid in the device or oxidation due to
    - Overvoltage on the device.

the warranty:

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

Exclusion of warranty

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# Legal notices

# **FAQ**

### 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.

# Data usage with datalogger enabled per month

Data	System	Example of quantity of products in the system			
usage	size	Xtender	VarioString	VarioTrack	BSP
8MB	S	1	-	1	1
20MB	М	3	2	1	1
60MB	L	9	15	-	1

These calculations do not include the remote control usage.

## 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 the closest possible to the power supply device (Xtender, VarioTrack or VarioString). Also check that you have activated the SIM card with the SIM card provider so that it can communicate via the data connection.

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 is blocking the SIM card and requires the PUK code (PIN unblocking key) to unlock the card. You need to insert the SIM card in a phone and unlock it by entering the PUK code.

### Xcom-portal

### 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.
- 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 another RCC 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, control that the RCC displays the message "Server connected" when turn on the installation

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

# **LED** states

### 3G modem LED

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

### Xcom-232i LED

LED colour	State	Indication	
Red	Blinks (Ton = 50 %   Toff = 50 %)	<b>Updating process.</b> 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 %.	
	Continuously 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	Continuously on	<b>Data logging.</b> 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 is 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.	

If several of the three states indicated by the red LED light occur simultaneously, they will be displayed in the following priority order:

- Update processing
- Error during updating
- MicroSD card full

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%).