



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

Quick guide

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 usage	System size	Xtender	VarioString	VarioTrack	BSP
8MB	S	1	-	1	1
20MB	M	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.
2. Have been connected to the server at least once.

In order to validate that the installation has been correctly configured, the Xcom system info (available on the 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).

Validate that the connection with the installation is well established, control that the RCC displays the message "Server connected" when turning 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
2. 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.

- EN 61000-6-4:2007/A1:2011

- EN 61000-6-2:2005

2014/30/EU

Electromagnetic Compliance (EMC) Directive

Low Voltage Directive (LVD) 2014/35/EU

- EN 62368-1:2014

The communication set Xcom-GSM described in this manual meet the requirements specified in the following EC directives and norms:

EU DECLARATION OF CONFORMITY

shock absorbing components.

also be protected against vibrations by

or dusty environment.

exposed to rain, snow or any other humid

and must under no circumstances be

genuine components shall be used.

modifications and replacements, only

or repairs whatsoever. Regarding authorized

forbidden to do any changes, modifications

authorization from Studer Innotec SA are

lators in force. Persons without a written

must be conforming to the laws and regu-

All components connected to this device

aware of the safety precautions and local

skilled and qualified personnel perfectly

communication sets must be entrusted to

The installation and commissioning of the

rules in force.

followed.

norms and regulations in force must be strictly

the device.

Therefore this manual should be kept close to

also damage the functionalities of the device.

might constitute a lethal physical danger but can

ceeding with the installation and commissioning

carefully read all safety instructions before pro-

information on compatbility.

Please contact your reseller for any additional

date and a hardware upgrade may be required.

updates are no longer guaranteed beyond this

one year, starting from the date of purchase. The

of the software updates with the hardware for

Studer Innotec SA guarantees the compatibility

Compatibility

this device.

other third party rights involved in the use of

assume no liability for patent infringement or

human beings or for the environment. We shall

the supply of life support applications or any

device is neither designed nor guaranteed for

under the responsibility of the end-user. This

by poor maintenance. The use of this device is

to the prescriptions, by a defective operation or

either by an installation that is not conforming

any liability for damages, costs or losses generated

Innotec SA. For this reason, we do not accept

of this device cannot be supervised by Studer

Installation, commissioning, use and maintenance

Disclaimer of liability

marks.

Disappearance of original identification

packaging.

Damage due to transport or inappropriate

(lightning).

Damage due to atmospheric overvoltage

nance.

tightened during installation or mainte-

Nuts or screws partially or insufficiently

Modification carried out without the ex-

shock

Damage resulting from a fall or a mechanical

condensation.

Liquid in the device or oxidation due to

Overvoltage on the device

by the warranty:

arisen from the following events are not covered

are not described in this manual. Damages

caused by handling, operation or actions that

No warranty claims will be accepted for damages

Legal notices

WARRANTY AND LIABILITY

Exclusion of warranty

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	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	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 %.
Orange	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.
	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 first two states indicated by the green LED light occur simultaneously, the signal indicating communication via RS-232 connection is reversed (Ton=80% | Toff=20%).

How to configure and to install the Xcom-GSM

1. Contents of the Xcom-GSM remote communication set



Xcom-232i Cellular modem



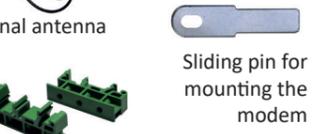
Micro SD card with adapter Communication cable, 2m



Serial cable, 0.25m Power supply cable RJ45-Jack, 0.5m



External antenna Mounting plate for Xcom-232i



Sliding pin for mounting the modem

2 DIN rail clips and screws

2. Additional items needed



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.)

3. 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 metres**.

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

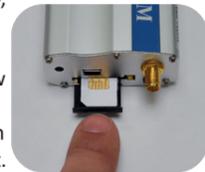
All cables you need are provided in the set.

ATTENTION!

The metallic casing of the 3G cellular modem is connected to the negative battery pole. Therefore it is necessary to **isolate its casing** from any metallic surface.

4. 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.

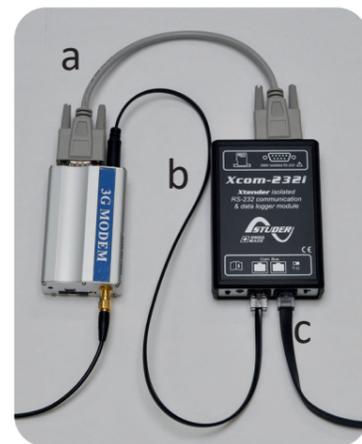


5. Connect the antenna to the modem



6. Wiring

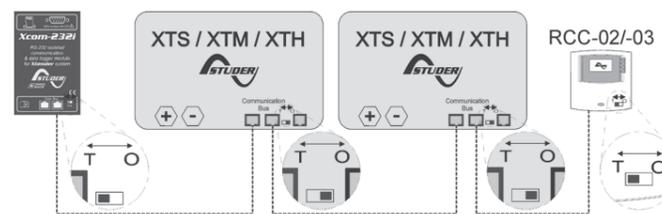
- Connect the serial cable between the modem and the Xcom-232i
- Connect the power supply cable between the modem and the Xcom-232i
- Connect the communication cable between the Xcom-232i and the installation



7. Set the terminations

It is very important to set the terminations correctly 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".

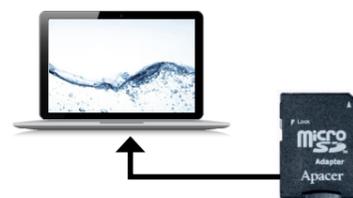
The termination switch next to the two RJ 45 connectors on the Xcom-232i must be set in position T.



8. Turn on the power

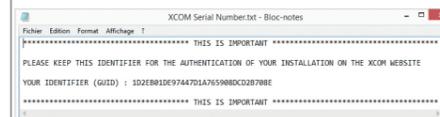


9. Insert the Micro SD card into the computer



11. 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.

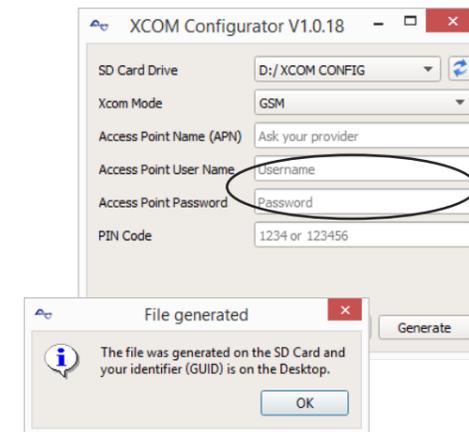


13. Xcom connects to the server

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.



10. Run the Xcom-configurator



Choose GSM mode.
Ask the Internet Service Provider.
Required for some Internet Service Providers, leave blank if not.
Enter the SIM card PIN code. Leave it blank if no code.

Generate the configuration file.

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.

12. 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 second.

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

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 successfully installed!

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

