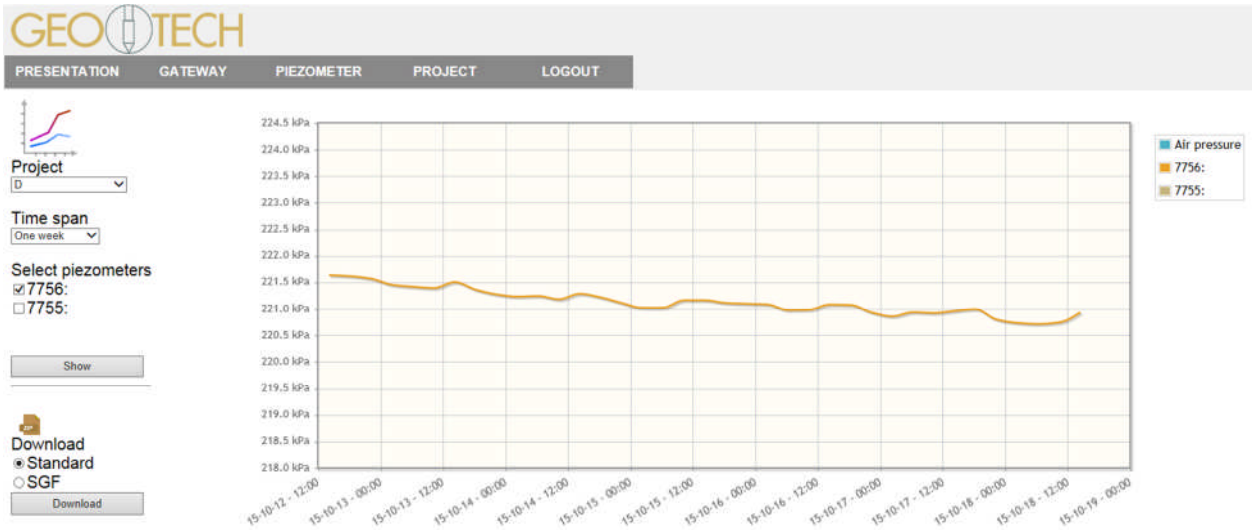
USERS MANUAL

GEOTECH PVT SERVER FOR REMOTE GATEWAY



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DOCUMENT HISTORY

Date	Comment	Sign
2015-09-02	Preliminary version for proof reading.	mcn
2015-10-21	Added functionality: “Projects” screen.	mcn
2015-11-10	Added functionality to “Gateway” and “Piezometer” screens	mcn
2015-11-30	Added information to 2.4, revised 3.6, added SGF data format to App.1	mcn

1 General Information

1.1 Foreword

This manual contains important information for the proper use and safe operation of the equipment

Read the manual carefully before you start operating the system. Also read the maintenance instructions before performing any maintenance work. The warranty from Ingenjörsfirman Geotech AB is valid only if the instructions in this manual are followed.

Always keep the manual by the equipment and replace it immediately if it should become wholly or partially unusable. A new copy can always be ordered from Ingenjörsfirman Geotech AB.

1.1.1 Content

The information in this publication is on the basis of information that was available at the time that the publication was written.

The information can change at any time. Ingenjörsfirman Geotech AB reserves the right to change or update the content of the manual without prior notice.

1.2 Safety

The user must be alert to potential hazards. The user should also have the necessary training, skills and tools to perform these functions properly.

The important safety messages in this manual are presented as follows:

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

This warning identifies important messages in this manual, e.g. information on risk for costly damage. Carefully read the message and inform your colleagues.

2 Product Information

2.1 General Description

The GEOTECH PVT SERVER solution from Ingenjörsfirman Geotech AB (Geotech) makes it possible to collect logging data and to set logging and alarm functionality of the GEOTECH PVT REMOTE GATEWAY and connected sensors.

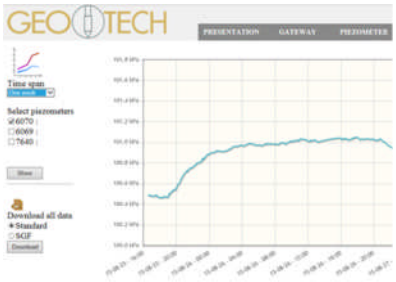
2.2 Application Examples

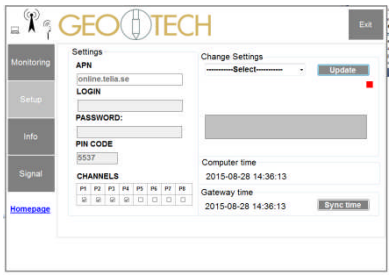
Fig. 1 – Remote read-out solution example: Monitoring of pore pressure in clay at different depths under a road. The gateway receives settings and sends logged data via the mobile phone network.

2.3 Intended use

The system is designed for geotechnical and hydrological monitoring, and may only be used for this purpose. All other use is prohibited.

2.4 System components overview

Item No.	Item	Illustration	Description
		Server access	
Refer to information below!	PVT Server Access		Right to use the Geotech PVT Server Solution for collecting logging data and to setting logging and alarm functionality of Geotech PVT Remote Gateway and connected sensors. Different business models are possible. Refer to details below.
29071	PVT Server Access 1 Year.		Pre-payed access to one Gateway for one year via Geotech PVT Server. The subscription is automatically renewed one year at the time.
29072	PVT Server Access 1 Month.		Pre-payed access to one Gateway for one year via Geotech PVT Server. The subscription is automatically renewed one month at the time.
29073	PVT Server Access 1 Day.		Charge per active day for one Gateway at post-paid subscription. *Service fee for invoices and annual fee for access may in addition occur with post-paid subscriptions, depending on contract terms.*
	PVT Server, re-activation fee		Cost for re-activation of closed subscription, for change of user information and for other requests requiring manual handling. *For more extensive operations, work will be charged per hour.*

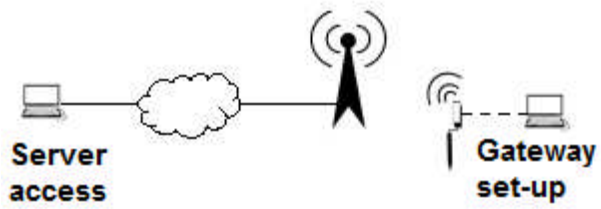
Item No.	Item	Illustration	Description
		COMPATIBLE EQUIPMENT Refer to separate manuals!	
		Remote Gateway	
28738	PVT Remote Gateway.		Remote gateway for connection of up to eight piezometers. Including air pressure sensor, recharge-able battery and setup software. Prepared for charging from solar panel (not included). The gateway communicates with via the 3G cellular phone network. Subscription and SIM card to be provided locally by the customer (mini-SIM 25 x 15 mm). Dimensions: 180 x 255 x 110 mm Weight: 2.2 kg
(included in 28738)	PVT Gateway setup software.	 	Software to be installed in your portable computer for set-up and trouble shooting. Refer to separate manual for details. License with right to use with one gateway. *Medium for delivery may change without prior notice.*
		Direct push piezometers	
10591	Piezometer with memory. 25 m wire.		Logging direct push piezometer with memory. Range 400kPa.
10590	Piezometer without memory. 25 m wire.		Direct push piezometer without memory. Range 400kPa.
On request	Direct push piezometer with special characteristics available on request.		Direct push piezometer with special characteristics available on request.

Item No.	Item	Illustration	Description
		Piezometer for membrane filter tip or open standpipe	
20500	Electronic transducer		Portable electronic pressure transducer with needle for filter tip 12912, 24560 and similar. Can also be used without the needle for water level measurements in open standpipe.
12912	Filter tip, Stainless steel.		Filter tip – closed type with membrane. Stainless steel. Connection pipe included.
24560	Filter tip, plastic		Filter tip – closed type with membrane. Plastic. Connection pipe included.

The GEOTECH PVT product family is being continuously developed and improved. We therefore reserve the right to changes of the information above.

3 Operation

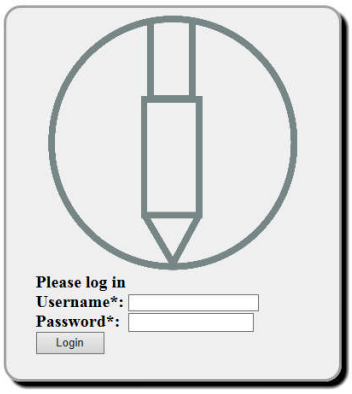
3.1 Server Access



After initial gateway set-up on site, you will be able to collect logged data and set logging and alarm functionality of the gateway and connected sensors from your computer via the Internet.

The web site is being continuously improved – therefore the descriptions below might differ from what you actually see. Please contact us of you should have any questions.

3.2 Log in

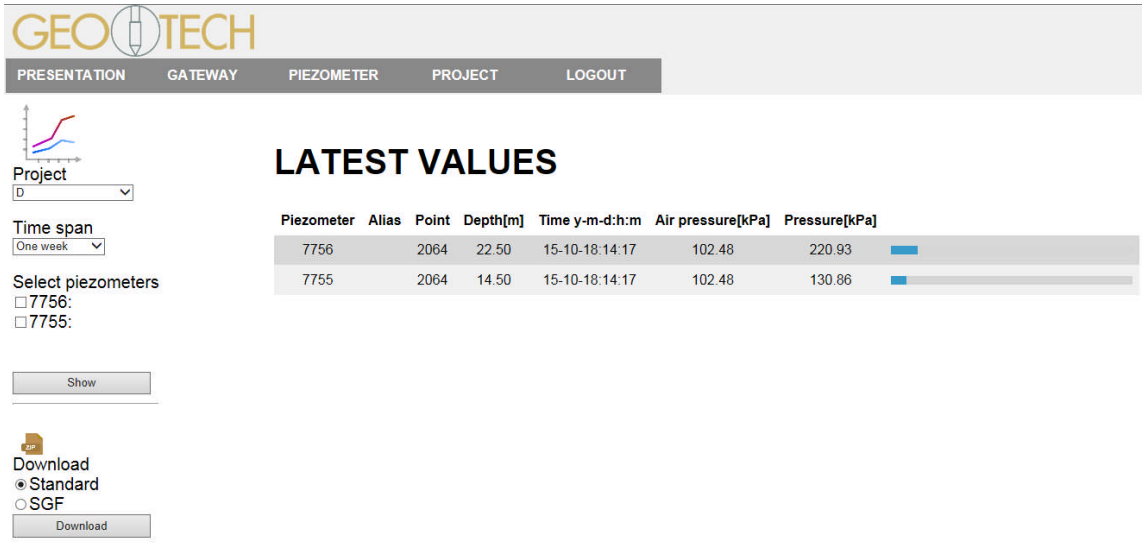


Open your browser and enter the web address of your server, normally http://gateway.geotech.se

Enter your user name and password and click “Login”.

3.3 Presentation

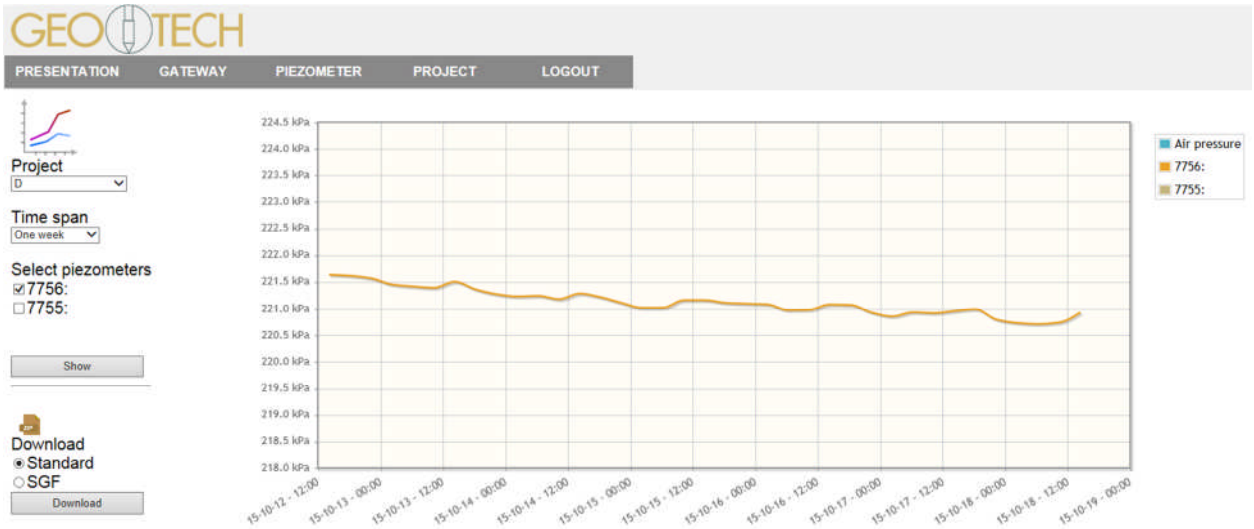
The “Presentation” screen shows latest values from the piezometers connected to the selected project.



Select project.

Select time span.

Select piezometers and click “show” to view time/pressure graph. Click and mark part of the graph, to zoom in on details. Double click to zoom out.



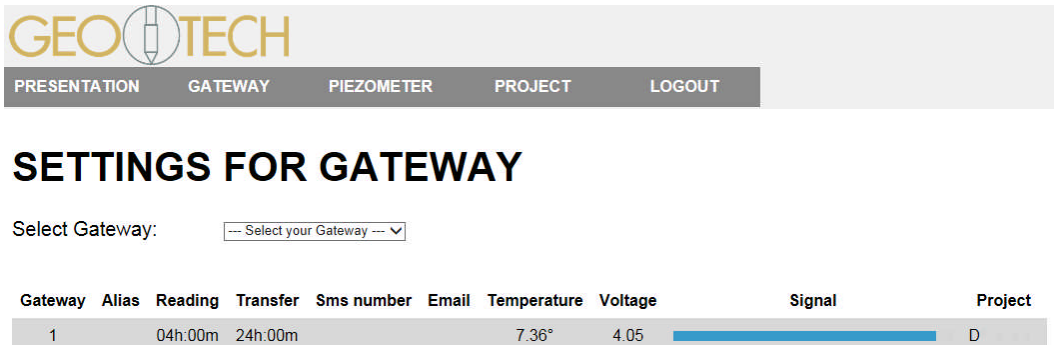
Select data format and click “download” and the log files for the selected project will be downloaded to your computer as a “zip” file. Please contact Geotech if your preferred format should be missing.

3.4 Projects

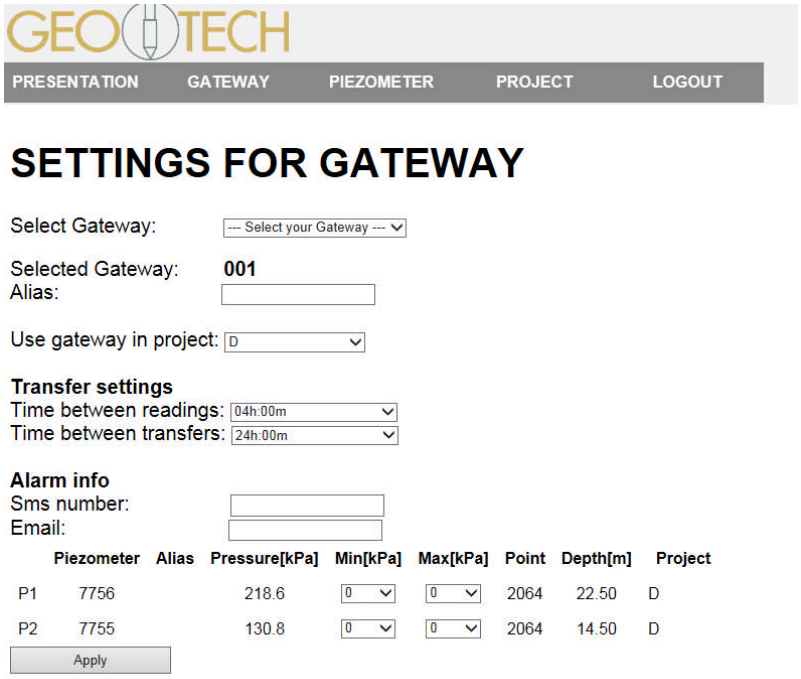
On the “Projects” screen you define new projects and edit information related to existing projects. A list of your projects is shown at the bottom of the page.

3.5 Gateway settings

From the “Gateway” screen, you connect your gateway to a project and set properties for the gateway, e.g. how often it collects data from connected piezometers and how often it connects to the server. Here you also set individual alarm thresholds for each individual piezometer and to whom an alarm is to be sent.



A list of available gateways is shown at the bottom of the screen. Select your gateway from the drop-down menu. Refer to the label on the gateway for serial number.



You may now give your gateway a name of your own choice (alias) and connect it to a project. Set time between readings of actual data from connected piezometers. Data will be buffered in the gateway.

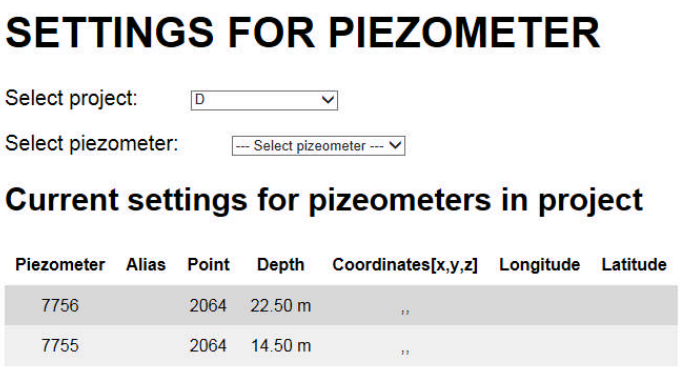
Set time between transfers between gateway and server. During the transfer buffered data will be up-loaded from the gateway to the server and gateway settings will be downloaded. Enter mobile phone number (“Sms number”) and email address for alarm messages.

Set alarm levels for each connected piezometer individually in the list at the bottom of the page.

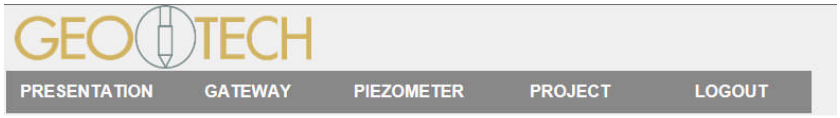
Click “Apply” to apply settings. Please note that the gateway might be in “sleep mode” – it could take several hours until settings are actually implemented.

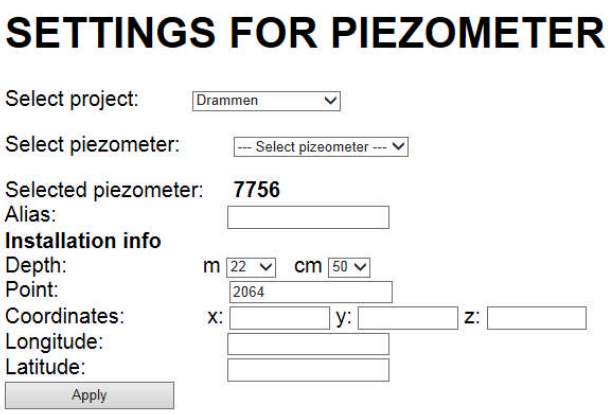
3.6 Piezometer settings

From the “Piezometer” screen, you set properties and check settings for each piezometer that is connected to the selected project. Note that alarm settings are defined from the Gateway screen.



Select project. Current settings will be shown at the bottom of the screen.





Select piezometer.

You may now define your own name (alias) for the piezometer.

You may enter information about installation depth, coordinates etcetera.

Click “Apply” to apply settings.

4 Support

4.1 Contact information

For support please contact:

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Datavägen 53
SE- 436 32 Askim
SWEDEN

info@geotech.se
+46 31 289920

4.2 Trouble Shooting

The trouble shooting table below is not complete, nor subject to any quality assurance, and thus published as indication only. Please feel free to revert with additional questions and suggestions.

Issue:	**Finding possible causes:**	**Actions:**

Appendix 1

SGF Data Format

$
KP= Project Name
HJ= Project Number
HM= Method
Person= Operator
HK= Point
HN= Manufacturer
HX= Coordinate X
HY= Coordinate Y
HZ= Coordinate Z
$
Metod= Pp,
Instr= Type of measurement device
GS= Depth
GF= 38
#
AK= Time on format “yymmddhhss”
AL= Pressure in “kPa” compensated for air pressure

Notes

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