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We are committed to teamwork, high quality manufacturing, advanced technology and unrivalled service and support.

The quality, accuracy and performance of the Company's products result from over 100 years experience, combined with a continuous program of innovative design and development to incorporate the latest technology.

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1. The relevant sections of these instructions must be read carefully before proceeding.
2. Warning labels on containers and packages must be observed.
3. Installation, operation, maintenance and servicing must only be carried out by suitably trained personnel and in accordance with the information given.
4. Normal safety precautions must be taken to avoid the possibility of an accident occurring when operating in conditions of high pressure and/or temperature.
5. Chemicals must be stored away from heat, protected from temperature extremes and powders kept dry. Normal safe handling procedures must be used.
6. When disposing of chemicals ensure that no two chemicals are mixed.

Safety advice concerning the use of the equipment described in this manual or any relevant hazard data sheets (where applicable) may be obtained from the Company address on the back cover, together with servicing and spares information.

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1 Installing and Configuring SMS Software

Installation and configuration of the SMS Software comprises the stages below.

Follow the instructions for each stage carefully:

- Configure the SQL security mode, install an SQL database and create a login – see Section 1.2, page 4.
- Configure a DNS connection – see Section 1.2.4, page 9.
- Install prerequisite software – see Section 1.3, page 15.
- Install and configure the ABB SMS Logger Server – see Section 1.4, page 17.
- Install and configure an SMS gateway:
 - ABB Gateway (recommended) – see Section 1.5, page 24
 - GPA Gateway (replaced by ABB gateway) – see Section 1.6, page 29
- Configure the AquaMaster – see Section 2, page 32.
- Follow troubleshooting procedures – see Section 3, page 36.

1.1 Hardware Requirements

The hardware requirements differ between SQL server, SMS Logger Server and the gateway.

All three products can be installed on the same server or separate servers.

SMS Logger Server & Gateway	Minimum	Recommended
	CPU	Pentium 3
Memory	1 Gb	1 Gb
Hard disk (available to install applications)	1 Gb	1 Gb
GSM modem	–	Siemens TC35
SIM card (for GSM modem)	–	Review SIM and local providers to obtain best rates and network coverage

Note. The SMS Logger Server and gateway are not resource intensive. Ensure the server has enough space to install the operating system and both applications.

Microsoft SQL Server	Minimum	Recommended
	CPU	Pentium 4
Memory	3 Gb	Maximum server capacity
Hard disk (available for SQL server/MeterData database)	40 Gb (see note below)	250 Gb 'Raid' disk system (see note below)

Note. Microsoft SQL server can be very resource intensive. Ensure the processor is to the latest specification and install the server with the maximum memory it can accommodate. Ideally, use a raid system to protect customer data and reduce the risk of data loss. The size of the disk array needed depends on the quantity of data to be stored in the database. The quantity of data is determined by total meters, number of reports (totalizer, flow, pressure) and retention period. The 250 Gb recommended capacity is sufficient for most applications.

Caution. Although the raid system helps prevent data loss due to disk failure, the system still requires a backup system.

1.2 Configuring the SQL Server and DSN

This guide assumes the user is familiar with SQL Server and the basic administration tasks. The sections below show some SQL Server and Windows configurations specific to the SMS Logger Server system.

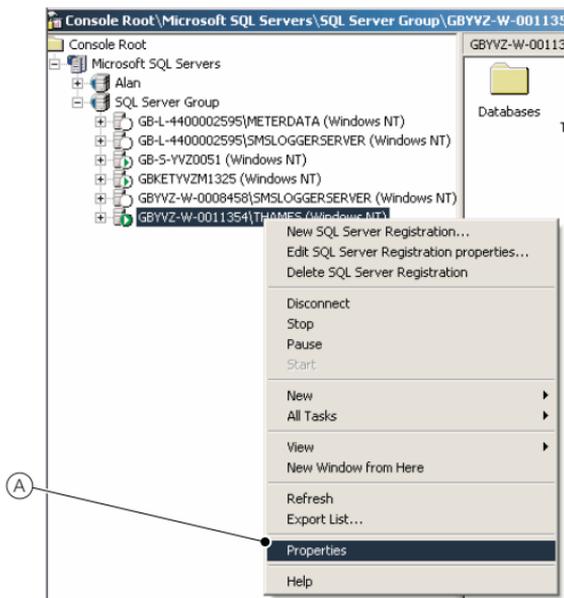
1.2.1 SQL Server Security Configuration (Mixed Mode)

SQL Server has two security modes: trusted logins only and mixed mode security.

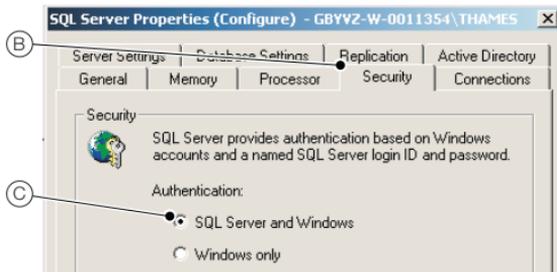
Note. To use SQL logins (required by SQL Logger Server) the server must be in mixed mode security.

To configure mixed mode:

1. From Enterprise Manager right-click on the server and select 'Properties' (A).



2. Select the 'Security' tab (B) and ensure the 'Authentication' option is set to 'SQL Server and Windows' (C).



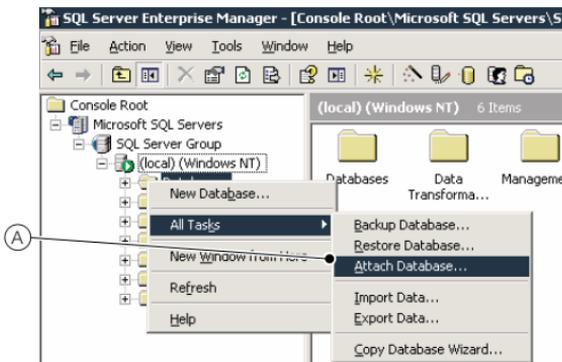
1.2.2 SMS Logger Server Database

A database must be created with a specific table structure, fields and attributes. The following options can be used to create the database used by SMS Logger Server:

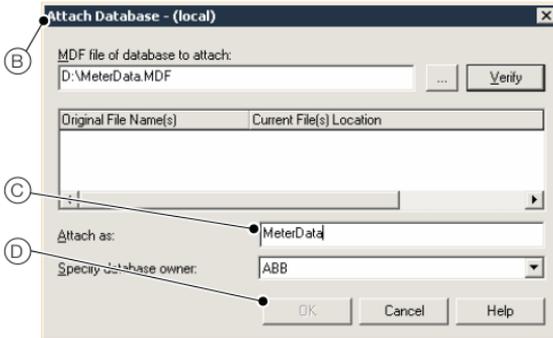
- *Recommended* – attach a blank database (provided on the SMS Logger Server installation supplement CD).
- Manual creation of the database using the structure shown in the logger server documentation (expert users only, not recommended).
- Use the SQL script files from the logger server CD (expert users only).

To attach the standard MeterData.MDF database (SMS Logger Server installation supplement CD):

1. Copy the MeterData.MDF file into the Microsoft SQL server data directory.
2. Right-click on the 'Database/All Tasks/Attach Database' menu (A).



3. Select the MeterData.MDF file using the browse button '...' on the 'Attach Database' dialog (B).



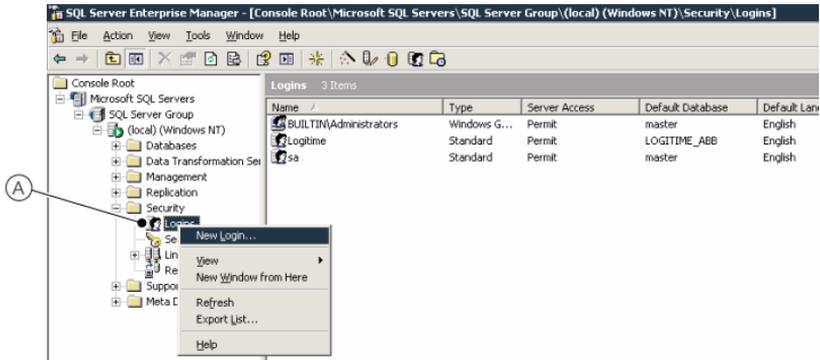
4. Type the name of the database (MeterData) in the 'Attach as' text field (C).
5. Click 'OK' (D).

Note. The steps above ensure the 'MeterData' database is available under the database folder in 'Enterprise Manager'.

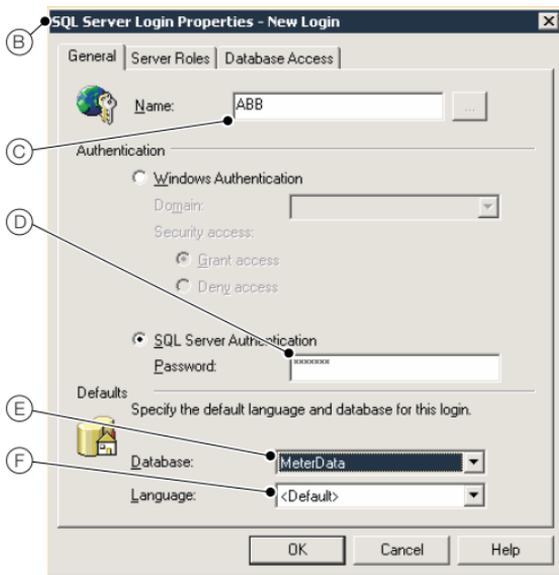
1.2.3 Configuring an SMS Logger Server SQL Account

To attach the standard MeterData.MDF database provided on the logger server installation CD:

1. In 'Enterprise Manager', expand the security folder and select a new login by right-clicking the 'Logins' option (A).



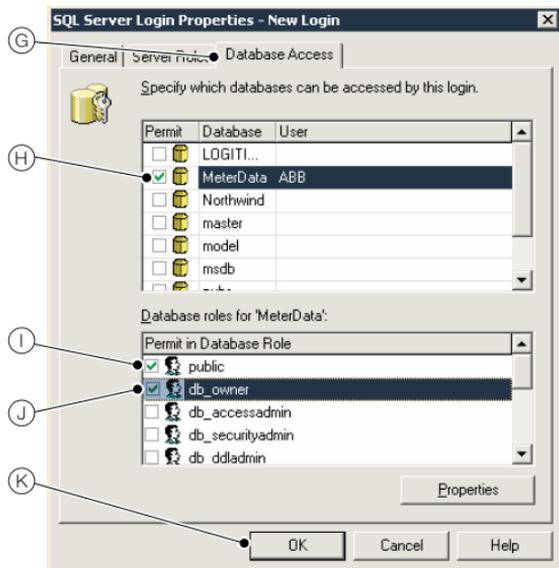
2. A dialog similar to (B) is displayed:



3. Type 'ABB' in the 'Name' field (C).
4. Type a password in the 'SQL Server Authentication' field (D).
5. Select the 'MeterData' database (as configured in Section 1.2.2, page 5) as the default database from the 'Database' dropdown (E).
6. select 'English' from the 'Language' dropdown (F).

Note. This user account is only used by the SMS Logger Server to connect to SQL server and SMS Logger Server requires English language.

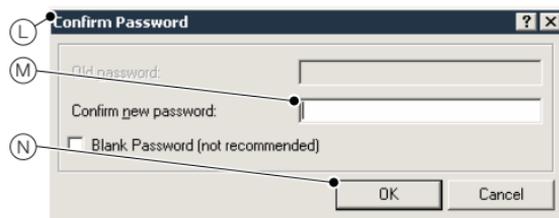
7. Click the 'Database Access' tab (G):



Note. The database roles can now be selected.

8. Ensure the 'MeterData ABB' database (H) is ticked – the 'public' role (I) is selected by default).
9. Confirm the 'db_owner' role (J) is selected – this ensures the ABB user has full access to the 'MeterData ABB' database.
10. Click 'OK' (K).

The 'Confirm Password' dialog (L) is displayed:



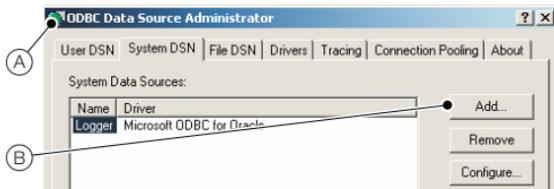
11. Confirm the password (M) selected for the ABB user in step 4 and click 'OK' (N).
The ABB user is configured successfully.

1.2.4 ABB SMS Logger Server Database DSN Connection to SQL Server

A DSN connection is used to enable ABB SMS Logger Server to communicate to an external database.

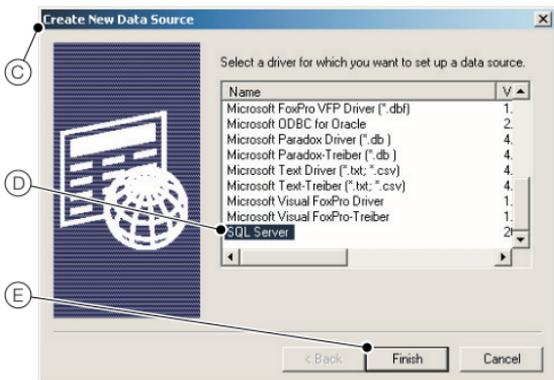
The following configuration shows how to configure the DSN connection used by the logger server in later configuration sections.

1. Open the 'ODBC Data Source Administrator' (A) from 'Administrative Tools':



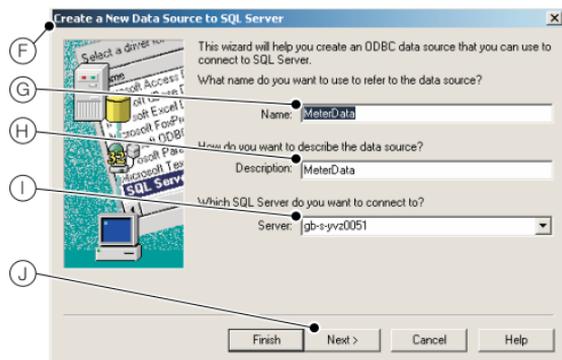
2. Click 'Add' (B).

The 'Create New Data Source' dialog (C) is displayed:



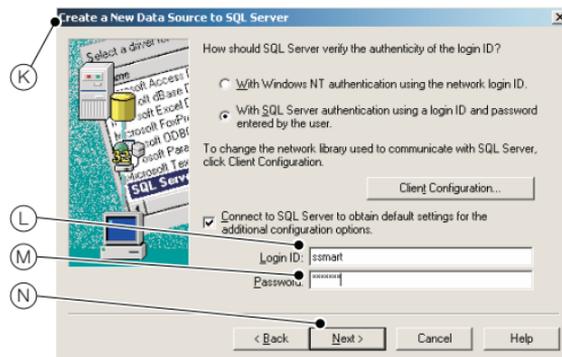
3. Select the 'SQL Server' driver (D).
4. Click 'Finish' (E).

The 'Create a New Data Source to SQL Server' dialog (F) is displayed:



5. Type the name of the 'DataSource' (MeterData) in the 'Name' field (G).
6. Type a description for the connection in the 'Description' field (H).
7. Type the name of the SQL Server in the 'Server' field (I).
8. Click 'Next' (J).

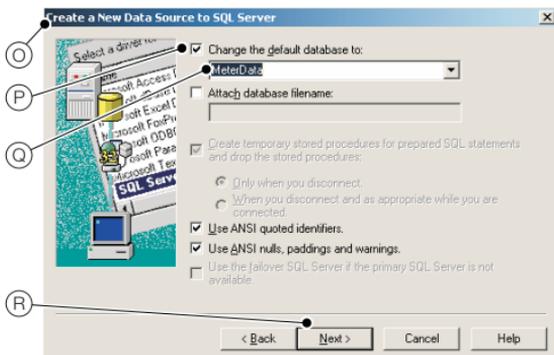
The 'Create a New Data Source to SQL Server' security settings dialog (K) is displayed:



Note. This dialog is used to enter the login ID and user password.

9. Type the login ID (user name) in the 'Login ID' field (L).
10. Type the ABB user account password in the 'Password' field (M).
11. Click 'Next' (N).

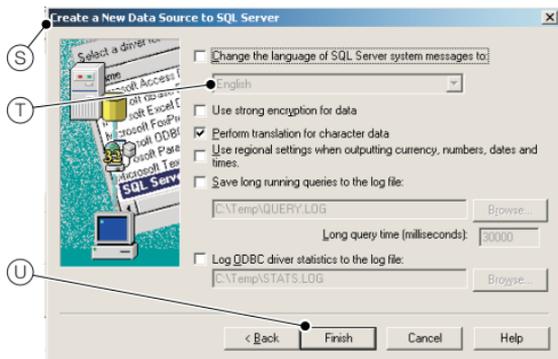
The 'Create a New Data Source to SQL Server' database settings dialog (O) is displayed:



Note. This dialog is used to define default database settings.

12. Tick the 'Change the default database to:' checkbox (P).
13. From the dropdown field (Q), select the name of the default database ('MeterData').
Logger server information is posted to this database.
14. Click 'Next' (R).

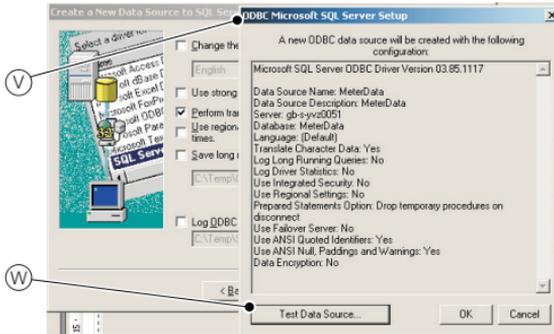
The 'Create a New Data Source to SQL Server' default settings dialog (S) is displayed:



Note. This dialog is used to select the language for SQL Server system messages.

15. Confirm the selected language (T) is set to 'English'.
16. Click 'Finish' (U).

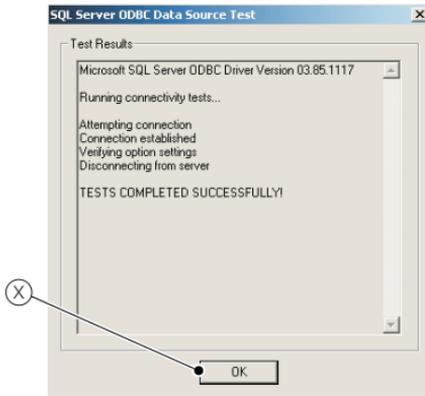
The 'ODBC Microsoft SQL Server Setup' dialog (V) is displayed:



Note. This dialog is used to test the connection.

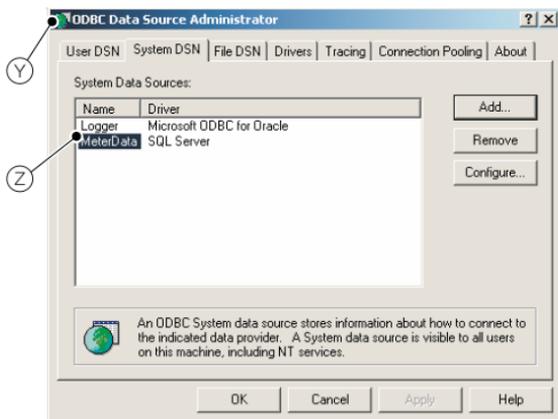
17. Click 'Test Data Source...' (W).

If the system is setup correctly, the following 'SQL Server ODBC Data Source Test' screen is displayed:



18. Click 'OK' (X).

The 'ODBC Data Source Administrator' dialog (Y) is displayed:



Note. This dialog confirms the new connection (Z).

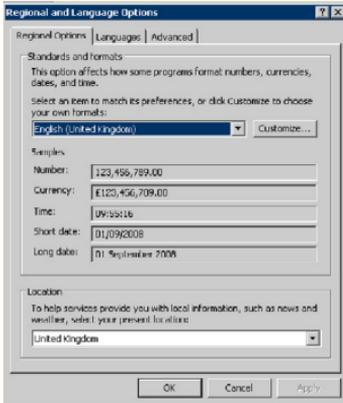
19. Click 'OK' to finish ODBC setup.

1.2.5 Windows 2003 Server Regional Settings

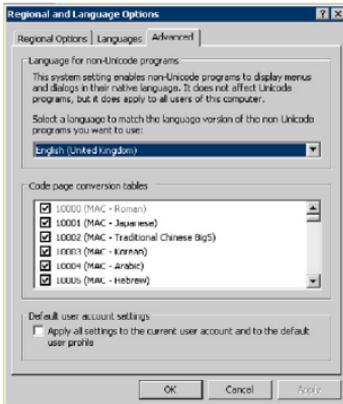
The ABB SMS Logger Server is designed to use UK English formats for time, date and decimal point separation. The Windows 2003 Server regional settings must be set to English to ensure the Logger Server correctly interprets the data formats.

Configure regional settings as follows:

1. Select 'Start', 'Settings', 'Control Panel', 'Regional and Language Options'. The following dialog is displayed:



2. On the Regional Options tab, ensure 'Standards and formats' is set to 'English (United Kingdom)' and 'Location' is set to 'United Kingdom'.
3. Select the Advanced tab. The following dialog is displayed:



4. Ensure 'Language for non-Unicode programs' is set to 'English (United Kingdom)'

1.3 Installation Prerequisites

The following prerequisite items are required by the ABB SMS Logger Server system.

- Application server (component)
 - Microsoft message queue
 - Microsoft IIS
 - ASP.NET
- Microsoft .Net1.1 framework
- Microsoft .Net2 framework

1.3.1 Installing Components

To install components:

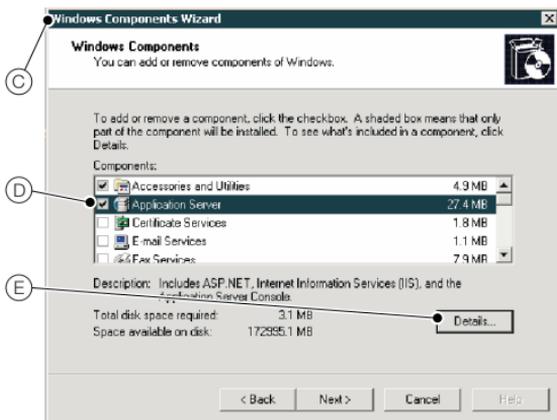
1. Launch 'Add/Remove Programs' from the Windows 'Control Panel' or type *appwiz.cpl* in the Windows 'Start' menu 'Run' command (Start/Run/appwiz.cpl).

The Windows 'Add/Remove Programs' dialog (A) is displayed:



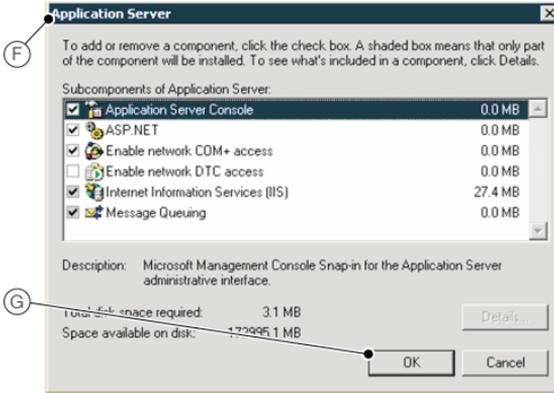
2. Select 'Add/Remove Windows Components' (B).

The 'Windows Components Wizard' dialog (similar to C) is displayed:



3. Tick the 'Application Server' checkbox (D).

4. Highlight the 'Application Server' item (D).
5. Click 'Details' (E).
6. The 'Application Server' dialog (F) is displayed:



7. Ensure the default options 'ASP.NET', 'Enable network COM+ access', 'Internet Information Services (IIS)' and 'Message Queuing' are ticked.
8. Click 'OK' (G).

Installation of the components is complete.

1.3.2 Installing Microsoft Framework

Note. The logger server requires Microsoft .Net version 1.1 framework and the gateway requires Microsoft .Net version 2 framework. These must be installed before installing the applications.

To install Microsoft .Net 1.1 and Microsoft .Net2:

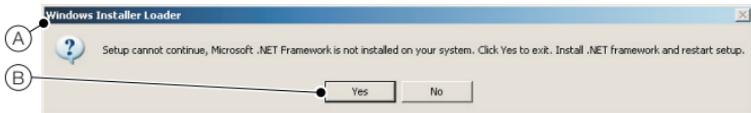
1. For Microsoft .Net 1.1, install *dotnetfx.exe* from the '\Microsoft .Net Framework' directory on the logger server CD.
2. For Microsoft .Net2, install *dotnetfx.exe* from the '\ABB Gateway\dotnetfx' folder on the gateway CD.

1.4 Installing the ABB SMS Logger Server

Note. Before starting the installation below, ensure the USB dongle is connected to the system.

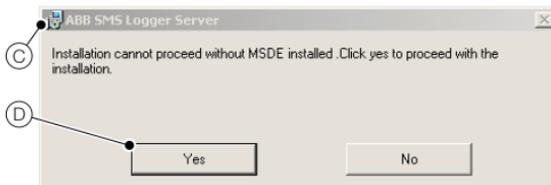
After launching the logger server CD the installation starts automatically. If the software does not launch:

1. Launch the 'setup.exe' file on the CD.
2. If Microsoft .Net 1.1 is not installed the 'Windows Installer Loader' screen (A) is displayed:



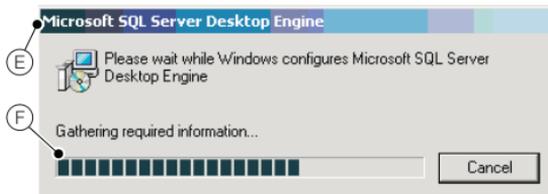
Note. To install Microsoft .Net 1.1, click 'Yes' (B) to exit and refer to Section 1.3.2, page 16.

3. If the prerequisite components are installed correctly, screen (A) is not displayed and the 'ABB SMS Logger Server' dialog (C) is displayed to prompt MSDE installation:

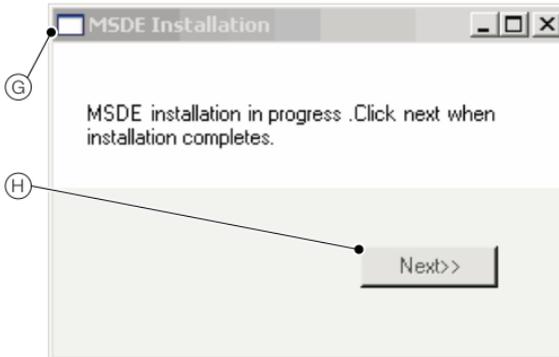


4. Click 'Yes' (D).

The 'Microsoft SQL Server Desktop Engine' message (E) is displayed showing the MSDE installation status (F).



- When the installation has finished, the 'Microsoft SQL Server Desktop Engine' message closes automatically and the 'MSDE Complete' message (G) is displayed:

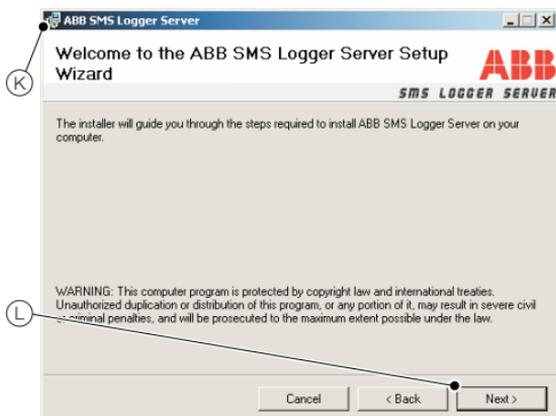


- Click 'Next' (H).
The 'ABB SMS Logger Server' splash screen (I) is displayed:



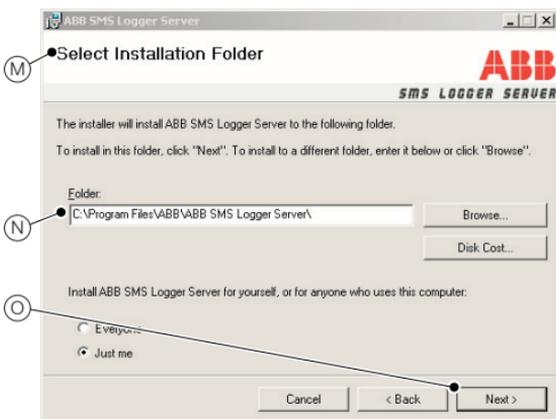
- Click 'Next' (J).

The 'ABB SMS Logger Server' information screen (K) is displayed:



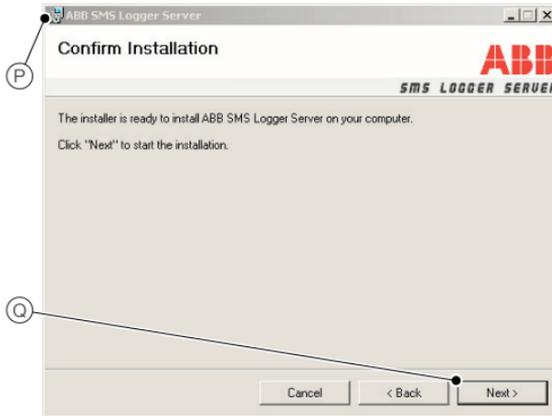
8. Click 'Next' (L).

The 'ABB SMS Logger Server' server installation folder (M) is displayed:



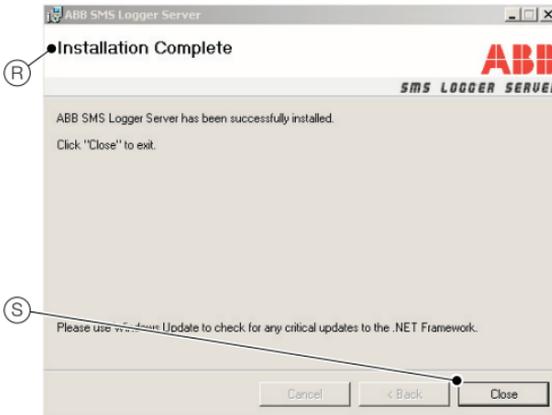
9. Accept the default directory location shown in the 'Folder' field (N) (recommended).
10. Click 'Next' (O).

The 'ABB SMS Logger Server' 'Confirm Installation' screen (P) is displayed:



11. Click 'Next' (Q).

The 'ABB SMS Logger Server' 'Installation Complete' screen (R) is displayed:

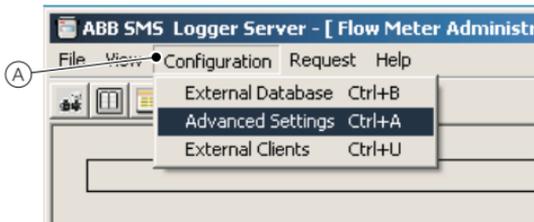


12. Click 'Close' (S) to close the window.

Installation is now complete.

1.4.1 Configuring the ABB SMS Logger Server

The ABB SMS Logger Server is configured via the 'Configuration' menu (A):

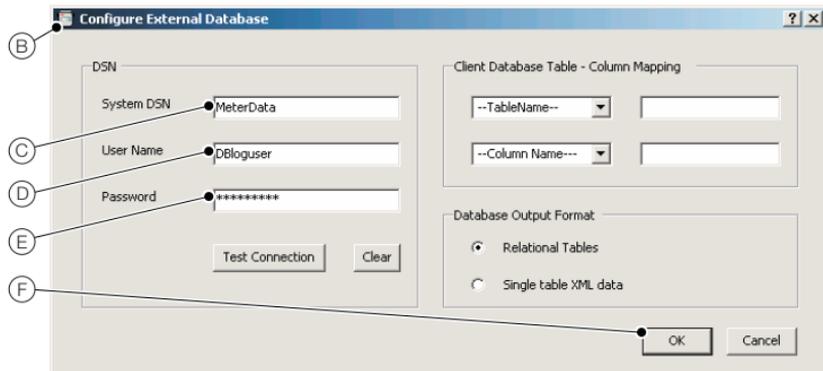


Note. The configuration contains an external database, advanced settings and external clients.

To configure the ABB SMS Logger Server external database settings:

1. From the 'Configuration' menu select 'External Database'.

The 'Configure External Database' dialog (B) is displayed:



Note. The 'Configure External Database' dialog (B) enables settings relating to database connectivity to be changed.

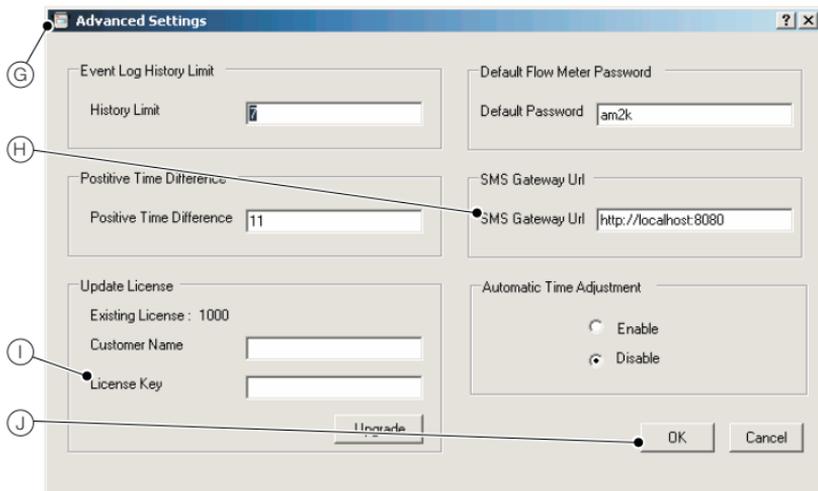
The system DSN (C), user name (D) and password (E) details entered at this dialog are dependent on the configurations in the DSN and SQL server setups.

2. Type the system DSN in the 'System DSN' field (C).
3. Type the user name in the 'User Name' field (D).
4. Type the password in the 'Password' field (E).
5. Click 'OK' (F).

To configure the ABB SMS Logger Server advanced settings:

1. From the 'Configuration' menu select 'Advanced Settings'.

The 'Advanced Settings' dialog (G) is displayed:



Note. The 'Advanced Settings' dialog contains two important configuration settings:

- the address of the SMS gateway ('SMS Gateway Url') (H)
- the 'License Key' information (I)

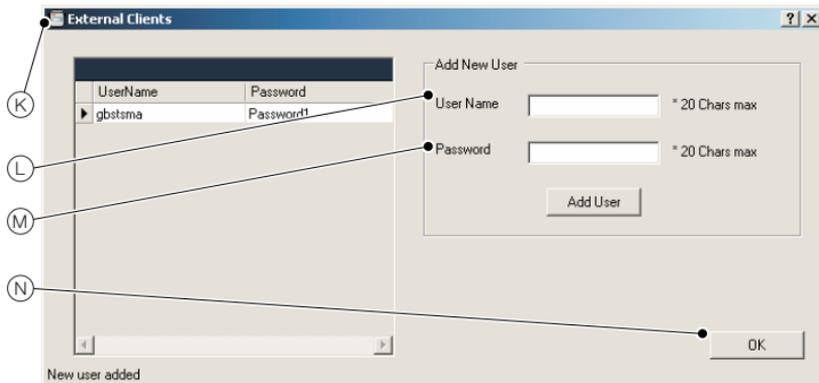
Refer to original documentation from ABB or contact an ABB representative to obtain a licence key.

2. Click 'OK' (J).

To configure the ABB SMS Logger Server external clients:

1. From the 'Configuration' menu select 'External Clients'.

The 'External Clients' dialog (K) is displayed:



Note. External clients are used to access the logger server web page to request DIB or data from the meters. Add a 'User Name' L and a 'Password' M to this dialog as required.

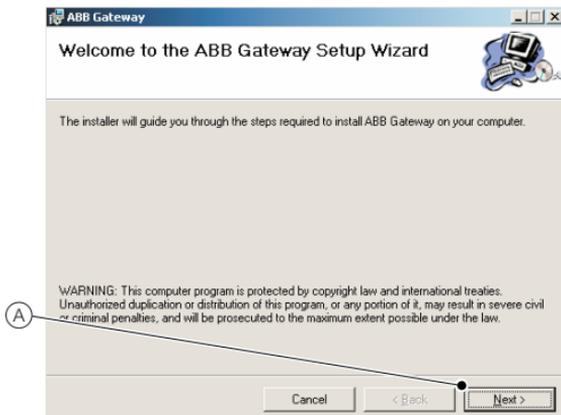
2. Click 'OK' (N).

1.5 Installing the ABB Gateway

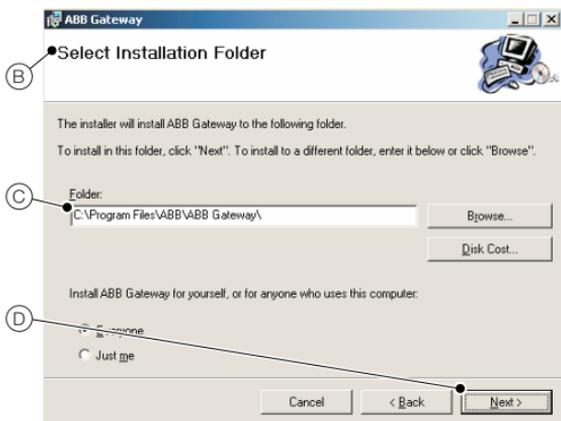
The ABB Gateway can be started by launching the 'setup.exe' file on the gateway installation CD. The Microsoft .Net 2 runtime is needed to install the ABB gateway (see Section 1.3, page 15).

If Microsoft .Net 2 runtime is not installed, the gateway installation wizard installs .Net 2 from the installation CD.

1. After the initial launch click 'Next' (A):



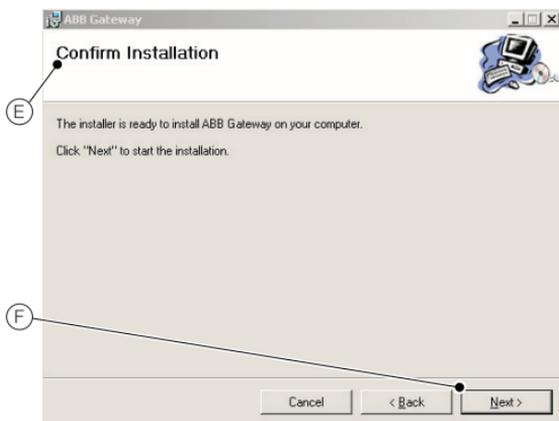
The 'ABB Gateway', 'Select Installation Folder' dialog (B) is displayed:



Note. This dialog is used to specify directory location for the installation.

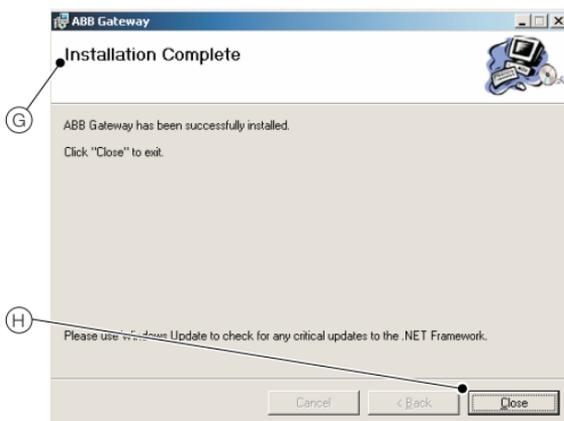
2. Accept the default directory location (C) (recommended).
3. Click 'Next' (D).

The 'Confirm Installation' dialog (E) is displayed:



- 4. Click 'Next' (F).

When the installation is completed the 'Installation Complete' dialog (G) is displayed:



- 5. Click 'Close' (H).

The installation is complete.

1.5.1 Configuring the ABB Gateway

The ABB Gateway runs as a service and is not in a started (running) state after initial installation. Before starting the service the gateway must be configured.

Configuration options are stored in the 'ABBGateway.xml' file, shown in the following table.

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <section name="Main">
    <setting name="IsURL"
value="http://localhost:80/LoggerServer/GatewayHttpHandler.aspx" />
    <setting name="listenerURL" value="http://localhost:8080/" />
    <setting name="NumberSendAttempts" value="4" />
    <setting name="NumberReceiveAttempts" value="4" />
  </section>
  <section name="Modems">
    <setting name="NumberOfModems" value="1" />
  </section>
  <section name="Modem1">
    <setting name="modemActive" value="True" />
    <setting name="portName" value="COM1" />
    <setting name="portBaudRate" value="9600" />
    <setting name="portDataBits" value="8" />
    <setting name="portParity" value="Even" />
    <setting name="portStopbits" value="1" />
    <setting name="portHandshake" value="None" />
    <setting name="modemTimeout" value="5" />
    <setting name="modemSleepTime" value="500" />
    <setting name="checkResponse" value="AT" />
    <setting name="cmdEchoOff" value="ATE0" />
    <setting name="cmdEchoOn" value="ATE1" />
    <setting name="cmdPDUMode" value="AT+CMGF=0" />
    <setting name="cmdTermination" value="\r\nOK" />
    <setting name="lineTermination" value="\r\n" />
    <setting name="messageHeader" value="\r\n+CMGL:" />
    <setting name="cmdError" value="ERROR" />
    <setting name="cmdTextMode" value="AT+CMGF=1" />
    <setting name="cmdReadAllMessages" value="AT+CMGL=4" />
    <setting name="cmdServiceCentre" value="AT+CSCA=X" />
    <setting name="cmdIncomingSMS" value="AT+CNMI=1,0,0,0" />
    <setting name="cmdSignalStrength" value="AT+CSQ" />
    <setting name="cmdMsgDelete" value="AT+CMGD=X" />
    <setting name="cmdMsgSend" value="AT+CMGS=X" />
    <setting name="cmdMemorySelect" value="AT+CPMS=SM, SM, SM" />
    <setting name="cmdServiceCentreNumber" value="+44973100973" />
  </section>
</configuration>
```

The configuration file is located in the ABB gateway directory chosen during installation. The majority of default options are specific to the modem used. Default settings are defined for a TC35 modem. These settings require change only if a different modem is used.

Assuming the TC35 is used, two items that may require change are the SIM provider service centre address (SMSC) and the communication port number of the connected modem.

1.5.2 Changing the Configuration

To change the configuration:

1. Open the 'ABBGateway.xml' file with a text editor and change the 'portName' and 'cmdServiceCentreNumber' value to the correct setting.

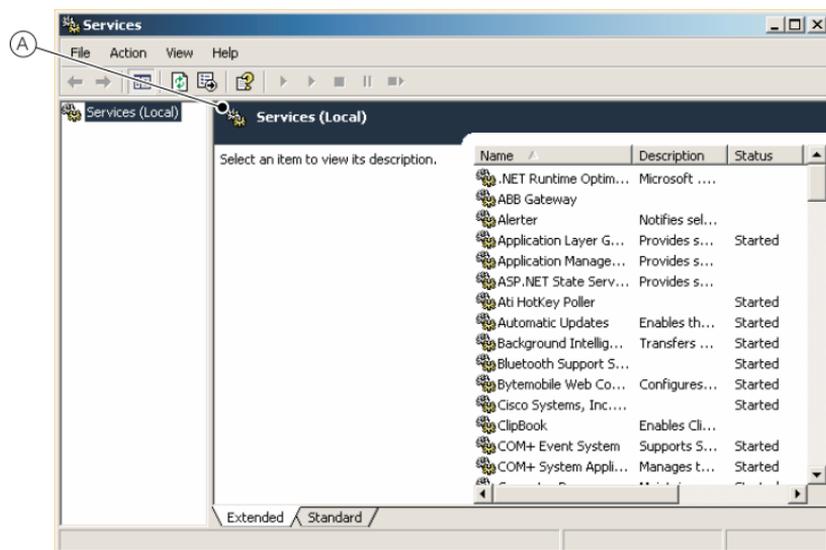
The SIM provider is able to provide the latest SMSC address for a SIM. The communications port can be tested by using Windows HyperTerminal to ensure the modem is communicating correctly on that port number.

If this test is successful, use the communication port number for the configuration file.

Note. Future releases of the gateway contain a configuration tool for editing this file.

2. After the configuration is complete the gateway can be started.

Start the service (A) by rebooting the PC or starting the service manually from the Windows 'Services' dialog:

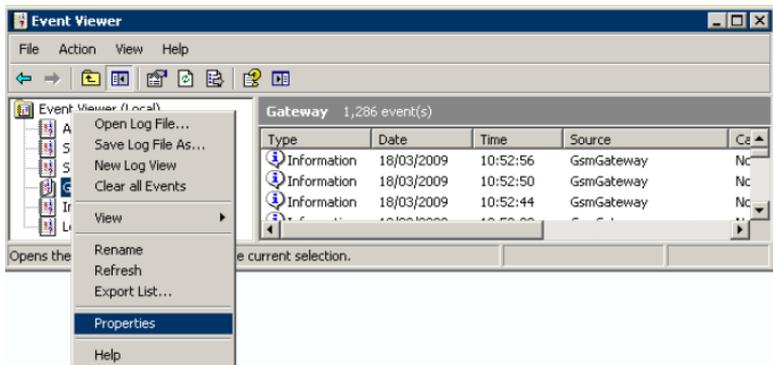


1.5.3 Changing the Gateway Event Log Settings

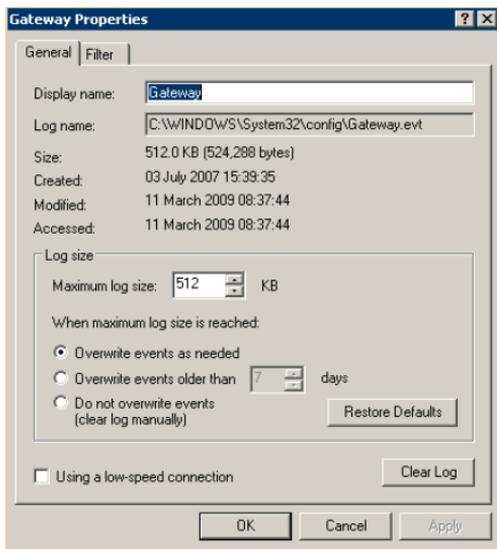
The ABB Gateway logs events into the Gateway event log. The ABB Gateway service creates two events during startup with descriptions 'Gateway started successfully' and 'Httpserver started successfully'. The Gateway event log is created the first time ABB Gateway service writes the events during start-up.

The following settings configure the gateway event log to ensure events can be overwritten as needed and the latest event can be added to the log.

1. Open the 'Event Viewer' from 'Administrative Tools'.



2. Right-click the 'Gateway' log and select 'Properties'. The 'Gateway Properties' dialog is displayed.



3. Set 'Maximum log size' to '512' Kb and select the 'Overwrite events as needed' radio button. Click 'OK' to complete the log file configuration changes.

1.6 Installing the GPA Gateway

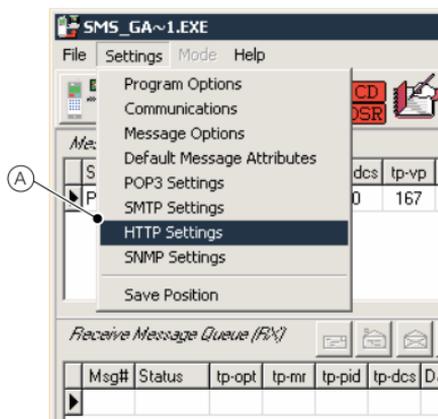
To install the GPA gateway, follow the GPA gateway installation instructions provided by GPA.

1.6.1 Configuring the GPA Gateway

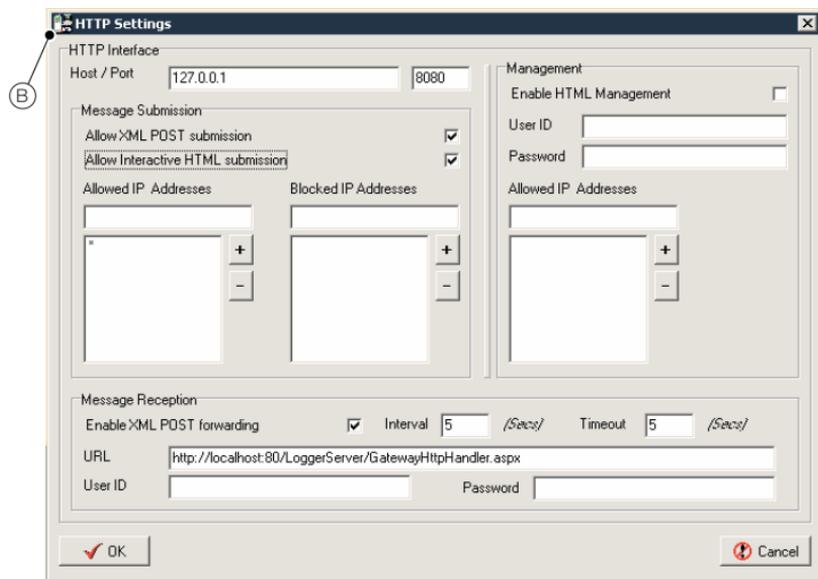
The following sections must be configured in the GPA gateway to ensure it works with the ABB SMS Logger Server system.

Access these communication and HTTP settings as follows:

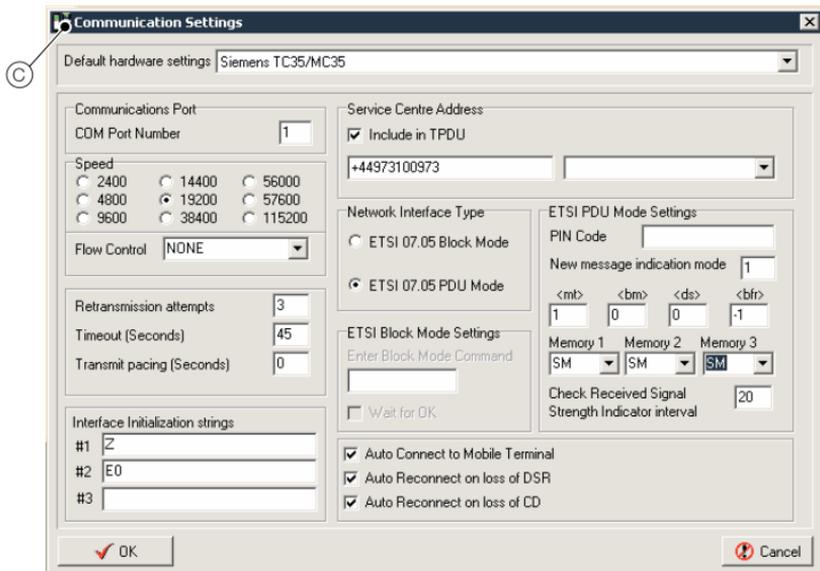
1. Select the GPA gateway 'Settings/HTTP Setting' menu (A):



The GPA gateway 'HTTP Setting' dialog is displayed (B):



2. Select the gateway 'Communication Setting dialog (C):



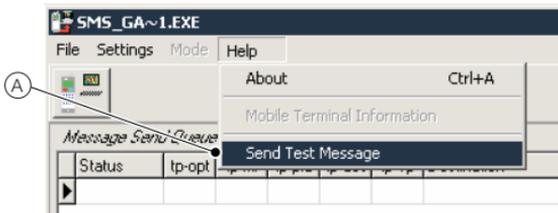
1.6.2 Testing the GPA Gateway

Test the logger server by sending a test registration message through the system.

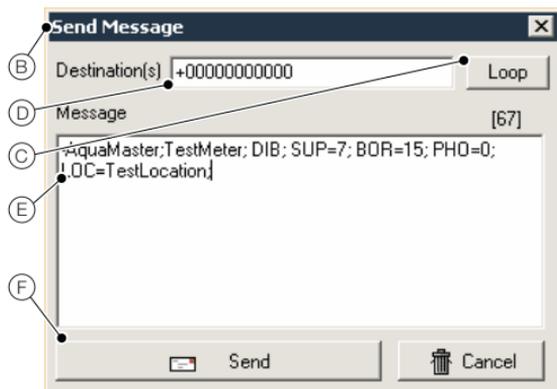
The test message dialog is initiated through the GPA gateway menu (A).

To test the GPA gateway:

1. Select 'Help/Send Test Message' (A).



The 'Send Message' dialog (B) is displayed:



2. Click 'Loop' (C). This adds '+000000000000' into the destination text field (D).

Note. If a test message is sent with the number '+000000000000', the gateway sends the message via the HTTP interface to the logger server rather than to the modem for transmission. This enables a loopback test to be performed to test the system.

3. Enter the registration message for meter 'TestMeter' as shown in the message text field (E).
4. Click 'Send' (F).
 - The meter 'TestMeter' is registered in the logger server.
 - The TestMeter record is also listed in the database 'FlowMeters' table.
5. After following the procedure above for sending a test message, check the logger server send and receive logs.

The send log should contain a DAK message attempting to respond to the DIB registration request.

Note. If there is a problem with any of these, steps, refer to Troubleshooting – see Section 3, page 36.

2 Configuring the AquaMaster for SMS using WAJC0041

When configuring an Aquamaster, ensure the flowmeter is renamed from the default underscore value '_'. The meter name *MUST* be greater than 4 characters and *CANNOT* contain any underscores '_'.

ABB recommend the customer uses a meter naming convention such that the meter name is unique to its installed location to ensure that the meter name does not change in the future.

It is possible to change a meter name but the meter **must** then be re-registered with the Logger Server **before** any new data is recorded in the SQL database. This ensures that all data before the name change is still referenced under the old name in the SQL database and new data post re-registration is recorded under the new meter name.

The AquaMaster GSM/SMS flow meter is supplied with the main parameters set. The steps below show the basic configuration necessary to setup and configure the AquaMaster to send SMS messages to a dedicated modem connection system.

Note. This software is used in association with the Quick Reference Guide IM/AMG/QRG.

2.1 General Setup

To perform a general setup:

1. Run the software and select the communication port.
2. Click 'Upload' to upload the configuration settings currently stored in the AquaMaster.
3. Check that the software version =>2v41. If the software version is incorrect, contact the Factory technical support for upgrade software.
4. Click the 'General' tab A.



This screen identifies Factory (default) settings and user-configurable options:

Note. For user-configurable instructions refer to the Quick Reference Guide IM/AMG/QRG.

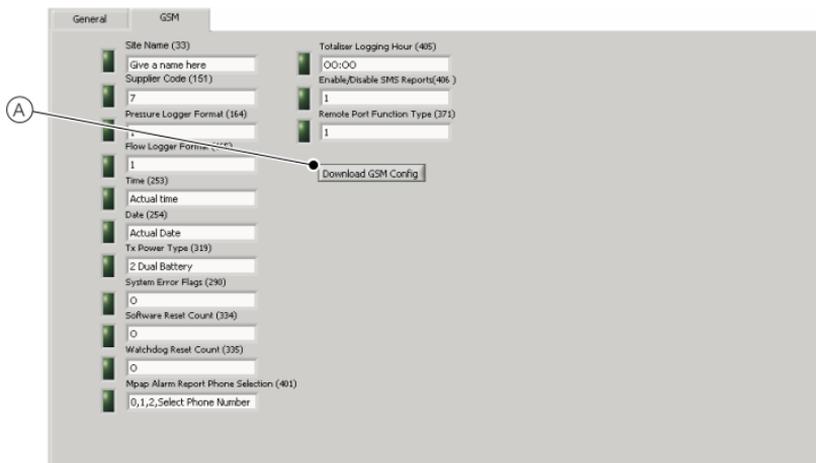
2.2 GSM Prerequisites

Populate the following fields to ensure the system returns messages that are not 'blacklisted' by the logger server software.

Note. The internal loggers are preset by the Factory.

>166=900	Low resolution logger used for GSM (15 minute reporting, sends 1 report a day for flow, pressure).
>168=60	High resolution logger (1 minute reporting, sends 15 reports a day).

The GSM has a separate 'Download GSM Config' button (A) – clicking this downloads only the information on the GSM tab page.



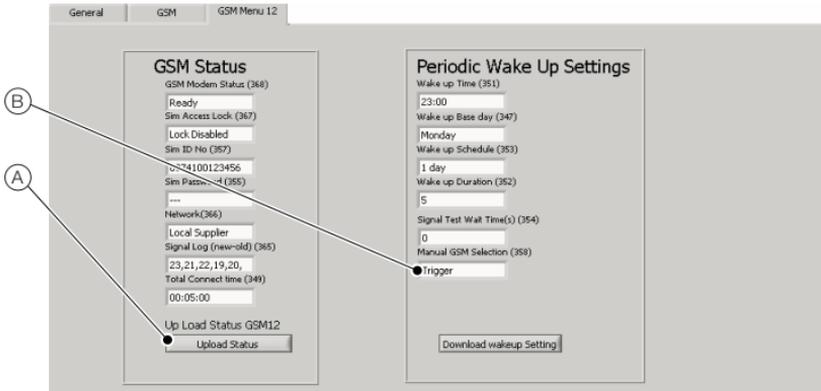
Note. If changes are made to the 'General' tab, they can be downloaded by selecting the download button. This downloads all parameters indicated on the General/GSM/GSM Menu 12, GSM Menu 13).

2.3 GSM Status and Periodic Wakeup Time

The 'Upload Status' button (A) displays default GSM settings from the network the AquaMaster is connected to (via the inserted SIM card).

To update GSM status and download 'Wakeup' settings:

1. Click 'Upload Status' (A) to update of the status of the GSM engine and network activity as a continuous routine.
2. To download the wakeup settings and manually initiate SMS logger report(s) to the selected modem number, insert '1' in the 'Manual GSM Selection' field (B).



2.4 SMS Reporting Setup Menu

This menu is user-configurable.

1. Populate all fields with the appropriate selection.
2. The following screen shows a general setting for standard use. Numbers (A) in brackets (#) indicate the numeric value that could be entered.

SMS Services	Text Auto Reports	Totaliser Auto Reports	Alarm Auto Reports
Auto Report Phone No. 1 (362) (0) 07712345677	Destination (394) (1) Phone 2	Destination [Totaliser] (400) (0) Phone 1	Destination [Alarm] (401) (2) Phone 3
Auto Report Phone No. 2 (362) (1) 07712345678	Text Report Schedule (361) (5) Weekly	Totaliser Report Schedule (399) (1) Daily	Alarm Reports Enabled (402) (1) YES
Auto Report Phone No. 3 (391) (2) 07712345679	Command String (363) FLW;TOF;ALM		

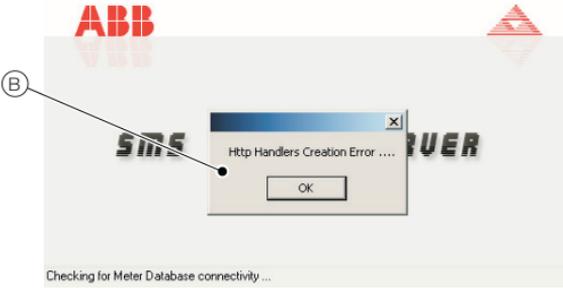
Flow / Pressure Log	
Destination [F,P] (395) (0) Phone 1	Pressure Report Schedule (389) (0) OFF
Flow Report Schedule (388) (4) Daily	Pressure Report Units (386) (0) Bar
Flow Report Units (385) (3) m ³ /h	Download SMS Config

Note. All selections above are shown in the Quick Reference Guide IM/AMG/QRG.

3 Troubleshooting

Note. Error messages are triggered by licence issues and HTTP Handlers errors.

Problem	Comment & Resolution
Licence Issue (A)	<p>Comment</p> <p>This error is displayed because the ABB SMS Logger Server cannot find a valid USB dongle licence.</p>  <p>Resolution</p> <p>Ensure a valid USB dongle is connected to the machine. If a valid USB dongle is not available, contact an ABB sales representative.</p>

Problem	Comment & Resolution
<p>HTTP Handler Creation Error (B)</p>	<p>Comment</p> <p>This error can occur on initial launch of the ABB SMS Logger application.</p>  <p>Resolution</p> <ol style="list-style-type: none"> 1. Ensure the prerequisite components (IIS and ASP.NET) are installed – see Section 1.3.1, page 15. 2. If the prerequisite items are installed correctly, follow the steps below to initialize the .Net runtime. <ol style="list-style-type: none"> a. Open a command prompt (Start/Run/cmd). b. Type 'c:' then press <enter>. c. Type 'cd\Windows\Microsoft.NET\Framework\v1.1.4322' (note some windows installations use WINNT directory instead of Windows) then press <enter>. d. Type 'aspnet_regiis -i' then press <enter>. e. Type 'iisreset' then press <enter>.
<p>Logger server doesn't show decimal place (C)</p>	<p>Comment</p> <p>If the data values displayed in SMS Logger Server are much larger than expected, the logger server may have a regional settings configuration problem, preventing the Logger Server from displaying returned flow values with a decimal point.</p> <p>Example:</p> <p>Totalizer value of 12.0000 l/s displayed as 120000 l/s</p> <p>Resolution</p> <p>Ensure the regional settings are configured correctly – see Section 1.2.5, page 14.</p>

Appendix A Menu Commands, Passwords and Message Types

A.1 AquaMaster Menu Commands

Action	Command
Scroll through menus	TAB
Scroll through menu items one at a time	ENTER
Scroll through all items in a menu	M
Change a menu item	SPACE
Go to a menu	Type menu number then click TAB
View a specific item value	>item ENTER
Change a specific item value	>item=value ENTER

A.2 AquaMaster Password Levels

Level	Password
2 (menu 1-7)	setup
4 (menu 1-13)	am2k
5 (ABB internal access)	–
7 (ABB internal access)	–

A.3 AquaMaster Message Types

Message Header	Description
00	Flow message
01	Pressure message
02	Totalizer message

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- Zirconia Oxygen Analyzers, Katharometers, Hydrogen Purity and Purge-gas Monitors, Thermal Conductivity

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We provide a comprehensive after sales service via a Worldwide Service Organization. Contact one of the following offices for details on your nearest Service and Repair Centre.

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Tel: +44 (0)1453 826661
Fax: +44 (0)1453 829671

USA

ABB Inc.
Tel: +1 215 674 6000
Fax: +1 215 674 7183

Client Warranty

Prior to installation, the equipment referred to in this manual must be stored in a clean, dry environment, in accordance with the Company's published specification.

Periodic checks must be made on the equipment's condition. In the event of a failure under warranty, the following documentation must be provided as substantiation:

1. A listing evidencing process operation and alarm logs at time of failure.
2. Copies of all storage, installation, operating and maintenance records relating to the alleged faulty unit.

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