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# Textlog for Borehole measurement



Software Version 3.0.0  
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## 1.0 Textlog Software - Introduction

A multi purpose PC software program is supplied to function in conjunction with the Textlog hardware.

The Main functions of the software is to:

Configure settings within the Textlog hardware prior to installation

Remotely update Textlog settings via outgoing SMS

Receive Incoming SMS messages from Textlog and transpose the readings into text log files

## 2.0 Installation

A standard Installshield package is supplied to assist in program installation.

The program requires read / write access to the following registry key, and all subsequent sub-keys:

HKEY\_LOCAL\_MACHINE\SOFTWARE\ASHRIDGE

All user files have been set to default within the C:\Ashridge\Textlog directory, and full read / write access will be required for these user files.

### 3.0 Launching Textlog

On launching the Textlog LC application the following screen is displayed:



Before using any function of the program it is advisable to first check the allocations of Comm Ports (serial ports). Serial ports are used extensively within the program for communication with the SMS modem for receiving incoming messages, and for configuring the Textlog hardware. All settings are under the 'Comm Ports' menu.

'Modem 1' is used to define the Comm port used for the primary modem.

'Modem 2' is only used for a secondary GSM modem, or configuring the Meter Reader hardware.

Comm port settings are stored in the windows registry.

## 4.0 Receiving SMS Messages

The PC software will receive the incoming SMS messages from the deployed Textlogs in the field, read, decipher the messages then place the readings into the relevant text file for further processing by database systems.

By default the files are stored at the following location:

C:\Ashridge\Textlog\Logs\

This location can be changed from the windows registry by modifying the following key:

HKEY\_LOCAL\_MACHINE\SOFTWARE\ASHRIDGE\TEXTLOG\LOGS

The format of the log files are described in the appendixes

To start receiving SMS messages from Textlogs follow the following steps:

Connect Modem to relevant Serial port on the receiving computer, and check the modem is powered up.

Within the '**Comm Ports**' menu ensure the correct Comm Port is selected, then click 'Connect'

*Note: Whilst configuring logger units via serial communication Modem 2 needs to be disconnected from modem to allow the serial port to be used for configuring the Meter Reader.*

The '**Communications History**' box will display a chronological list of communication events between Textlog Receiver and the GSM modem.

When successfully connected to the GSM network signal strength readings are displayed in the communications history, and also graphically displayed in bar chart format.

The modem will act on any new messages as it receives them, and also check both the SIM and Modem memory for any buffered messages once every 10 minutes.

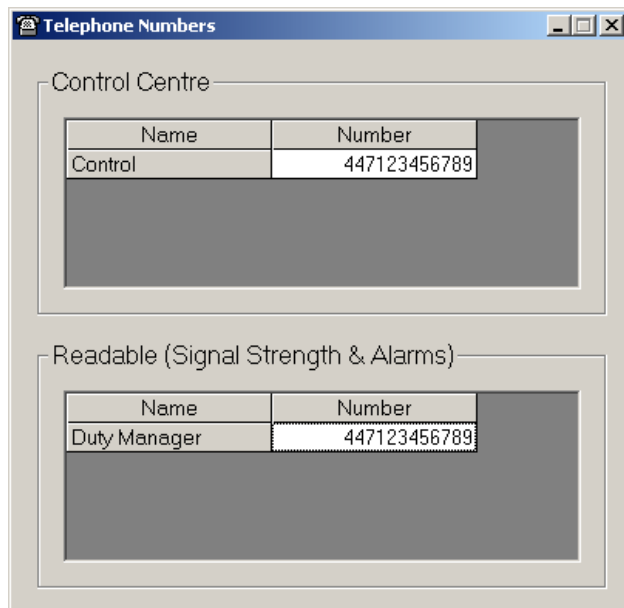
## 5.0 Storing Telephone Numbers

All required telephone numbers (for receiving logs, and signal strength checks) must be entered into the local database prior to setting up the Textlog.

To do this:

Select 'Setup', then 'Telephone Numbers' from the menu bar, as shown below.

The following window is displayed:



**'Control Centre'** phone numbers are for Host control centre receiving telephone numbers.

**'Readable (Signal Strength & Alarms)'** phone numbers are for mobile phones used to receive alarm messages.

Telephone numbers can be edited by right clicking on the relevant table, and choosing the required option:

- Add Name & Number
- Edit Number
- Edit Name
- Remove Entry

*Note: For all numbers (except special service centres such as 8xxxx) use the international number convention e.g. 447xxxxxxxxx omitting the '+' symbol.*

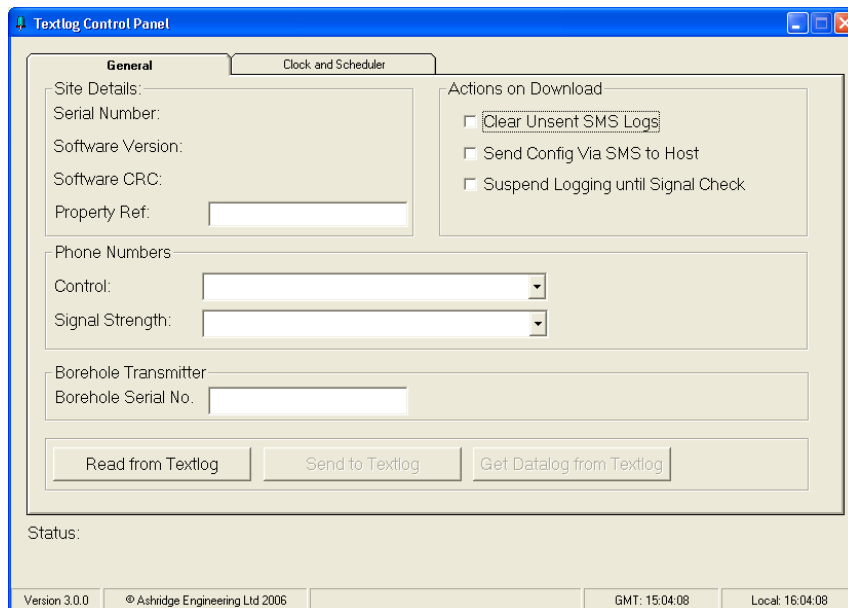
## 6.0 Configuring Textlog from PC

Prior to use the hardware must be configured with user settable schedules and telephone numbers.

Select 'Setup', then 'User Configuration' from the menu bar, as shown below.



The Textlog Control Panel is then displayed:



Connect the logger to PC by using the supplied 'Configuration cable' to the allocated RS232 port and press 'Read from Textlog', and follow the on screen prompts. The PC will communicate to the Textlog via the RS-232 Lead to upload the current settings, and display them on screen.

Note: Ensure that the Modem 2 is NOT active receiving messages to keep COMM port available for configuration

*Once the current configuration has been successfully uploaded there are two panels available for user configuration.*

## 6.1 General Setup

The screenshot shows the 'Textlog Control Panel' window. It has a blue title bar and standard window controls. The main area is divided into two tabs: 'General' (selected) and 'Clock and Scheduler'. The 'General' tab contains several sections: 'Site Details' with fields for 'Serial Number', 'Software Version', 'Software CRC', and 'Property Ref'; 'Phone Numbers' with 'Control' and 'Signal Strength' dropdown menus; 'Borehole Transmitter' with a 'Borehole Serial No.' field; and 'Actions on Download' with three checkboxes: 'Clear Unsent SMS Logs', 'Send Config Via SMS to Host', and 'Suspend Logging until Signal Check'. Below these sections are three buttons: 'Read from Textlog', 'Send to Textlog', and 'Get Datalog from Textlog'. At the bottom, there is a 'Status:' label and a footer bar with 'Version 3.0.0', '© Ashridge Engineering Ltd 2006', 'GMT: 15:04:08', and 'Local: 16:04:08'.

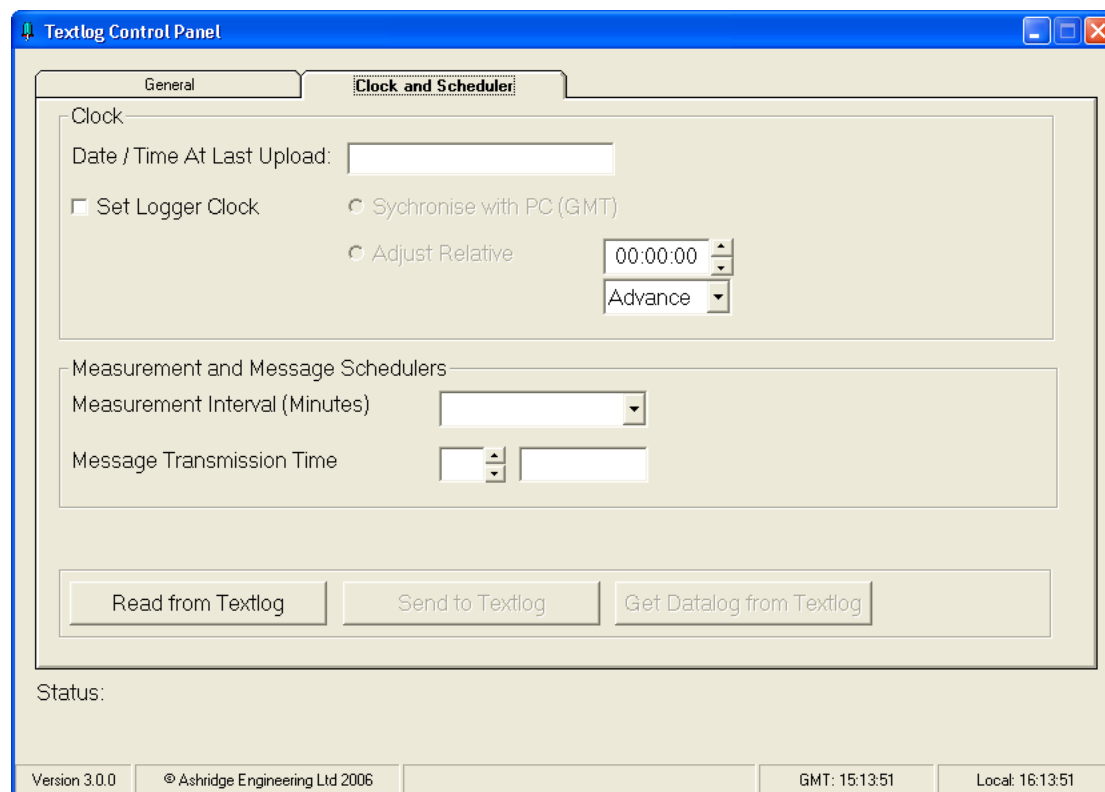
Site Details displays the Ashridge Serial number of the Textlog, Firmware Version, and Firmware CRC Checksum. The CIS property reference is to be entered here.

Phone Numbers is used to set the various telephone numbers for SMS to be sent. Control will receive all logs and configuration settings, Signal Strength is for the telephone number of the installer to receive a message confirming successful install.

Borehole Transmitter Serial No is used record the serial number of the attached borehole depth transmitter for inclusion in the log files.

Actions on Download is used for selecting any maintenance required  
'Clear Unsent SMS Logs'  
'Send Config Via SMS to Host PC'

## 6.2 Clock and Scheduler



**'Date / Time At Last Upload'** displays the most recent internal clock settings in the Meter Reader, when the internal settings were last uploaded.

To adjust the internal clock check **'Set Logger Clock'** and choose one of the following options:

**'Synchronise with PC'** will set the clock to the current windows PC settings, automatically corrected for daylight saving. For this option it is essential that the PC clock is correct, and daylight settings set appropriately. This option is only available for loggers connected via configuration lead.

**'Adjust Relative'** allows the internal clock to be adjusted forwards (advance), or backwards (retard). This is the only available method for remotely adjusting internal clocks.

**'Measurement Interval'** sets the logging interval to 1, 5, 10 or 15 minutes. The desired interval is chosen by selecting the value from the dropdown box.

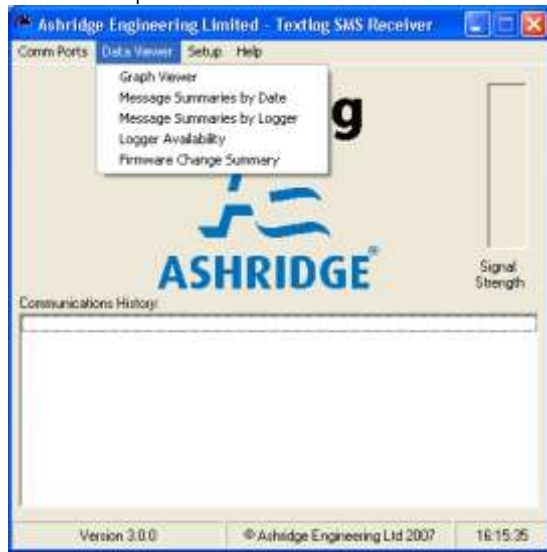
**'Message Transmission Time'** sets the daily time for SMS logs to be transmitted. This is set by using the up / down arrow and choosing an hour, the minute is automatically chosen at random.

*Note: The Current PC Clock, and GMT times are shown on the Status bar.*

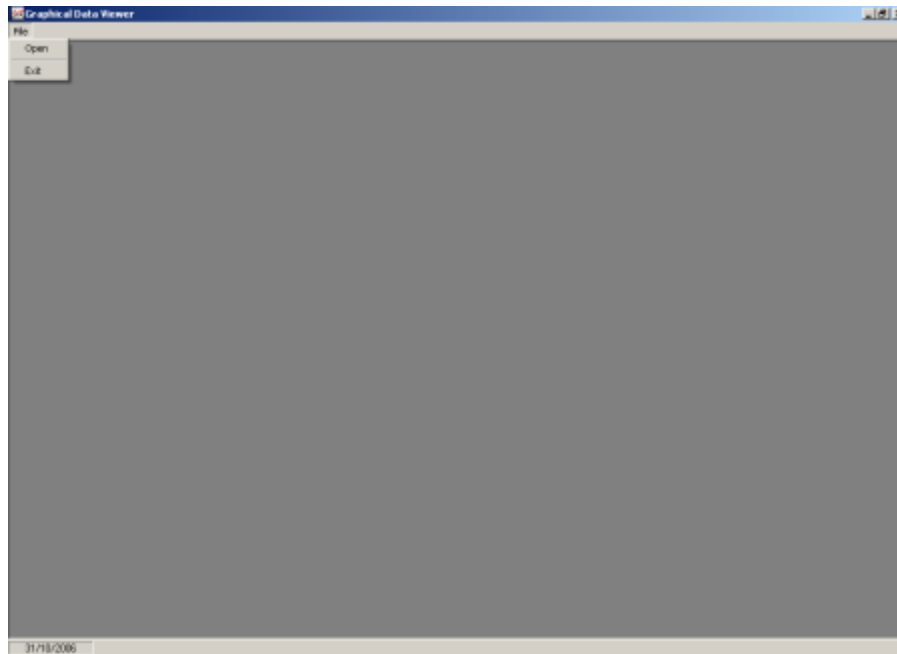
C:\Documents and Settings\Mick\My Documents\AA\_Files\AA\_Office\_Files\Ashridge\Product\_Technical\_Data\Product\_Manuals\Water\Textlog for Borehole V1 310808.doc

## 7.0 Data Viewer

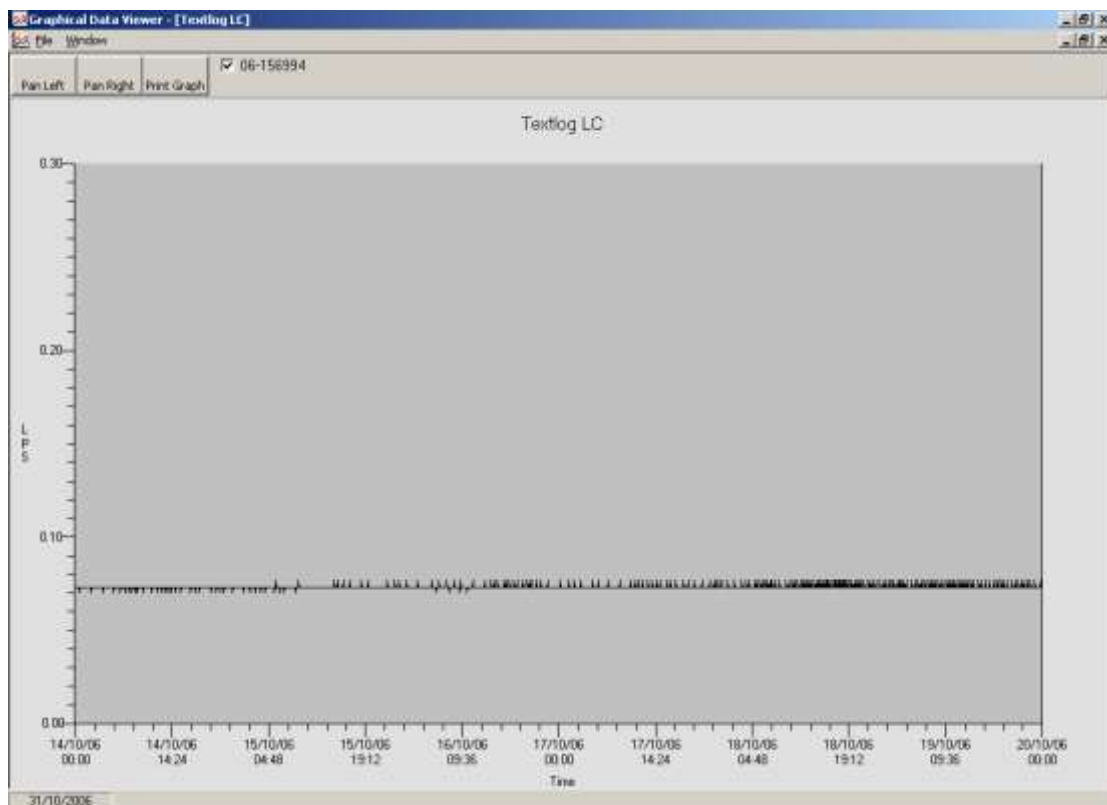
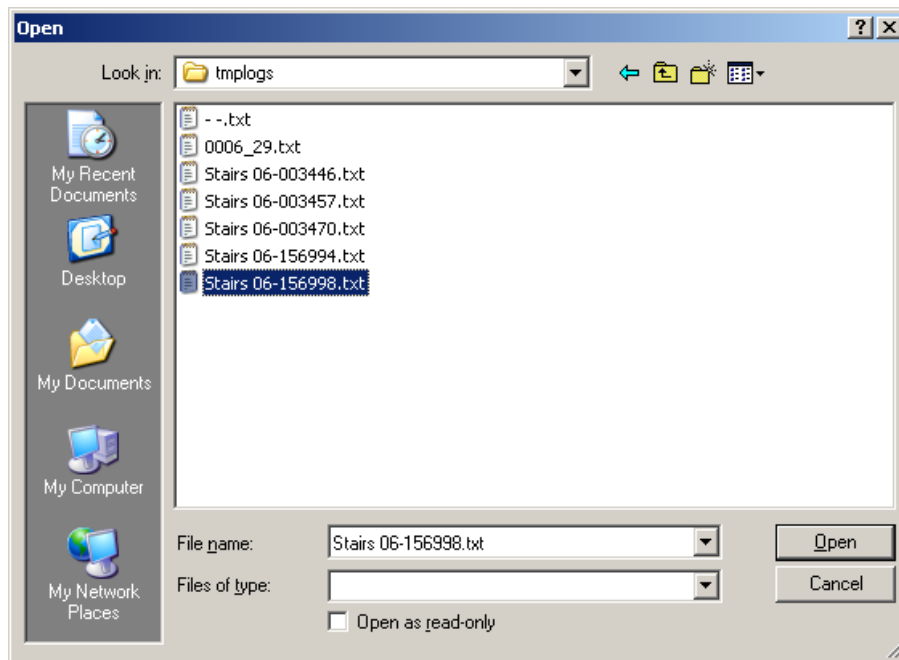
### Load 'Graph Viewer'



From 'Graph Viewer' select 'File' then 'Open'



Select the file to be opened



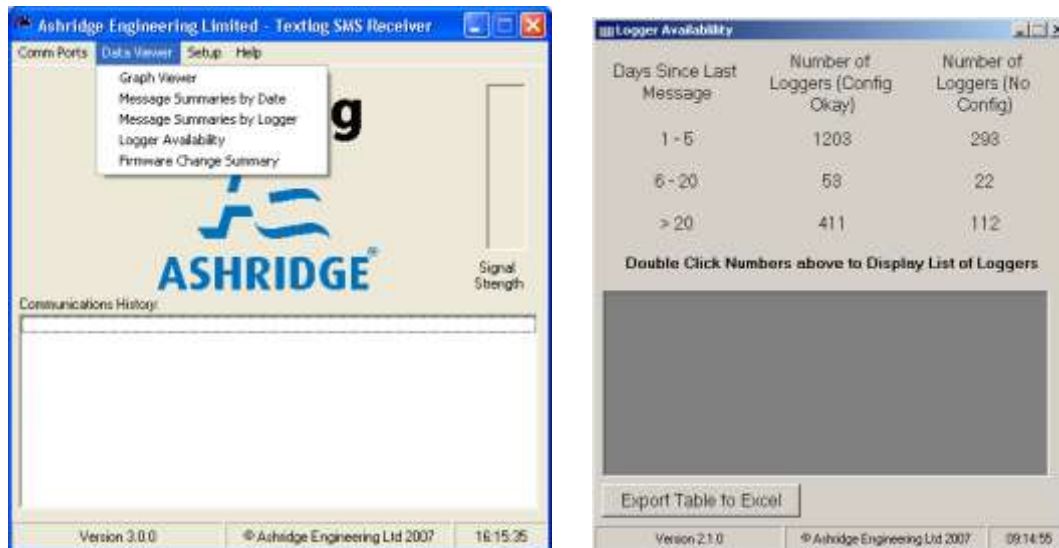
To Add Extra data series choose 'Add' from the File Menu.

It is possible to turn data series 'on' and 'off' by clicking the checkboxes at the top of the screen

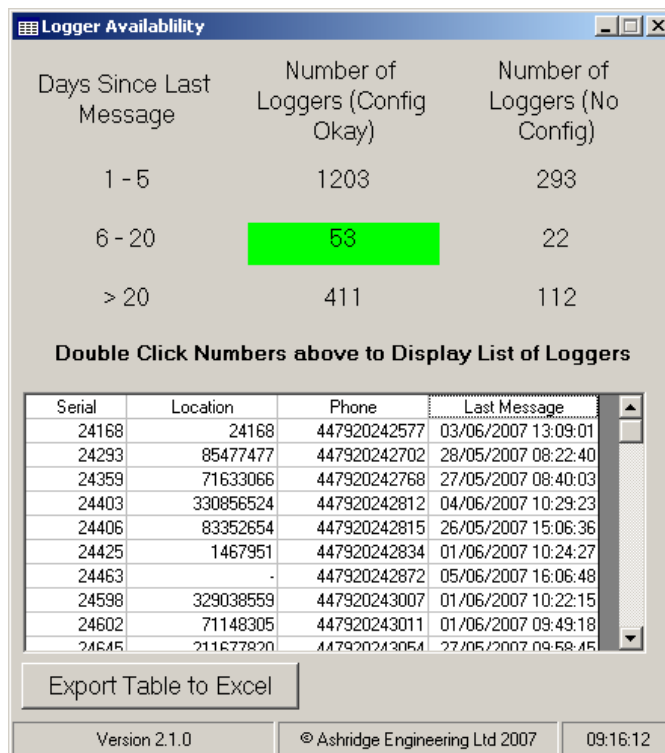
Right Click on the graph for scaling options

## 8.0 Displaying Logger SMS Availability

By selecting 'Logger Availability' from the 'Data Viewer' menu it is possible to display a table detailing the number of loggers reporting in set time periods (1 to 5 days ago, 6 to 20 days ago, and greater than 20 days ago).



To display a list of actual loggers contained within the specific time period double click the resulting number and a list will be displayed. By clicking the 'Export Table to Excel' button the list will be automatically transferred to a new Excel worksheet.



## 9.0 Remote Configuration

Remote Configuration is used for sending SMS messages back to the Textlog to change their settings, such as phone numbers, adjust clock, and schedulers.

**By choosing the 'Setup', 'Remote Configuration' menu, then selecting the required logger or entering the logger serial number it is possible to view the latest settings as held in the lookup file.**

All settings can be changed via remote configuration with exception of the Clock which can only have a correction value (forward or reverse) sent.

**To send new settings click the 'SMS to Textlog' button, and SMS messages will be send to the Textlog, which will pick up the messages on its next scheduled send or receive and then act upon the new commands and automatically send a copy of the new settings back to the control and engineering computers.**

The local lookup of settings does not get updated until the configuration message is returned from the Textlog.

## 10.0 Changing battery or SIM card

Using the Ashridge 'C' spanner, firmly grip the Textlog body and remove the top end first, see photo #1 below.

Using the Ashridge 'C' spanner, firmly grip the Textlog body and remove the base (connector end), see photo #2 below before sliding out the electronic assembly.

### SIM card change

Discard the old Silica Gel sachet and slide the SIM card cover towards the left hand edge of the circuit board, remove SIM card and insert new SIM card. Press down and slide the SIM card cover towards the right hand edge of the circuit board.

### Battery change

Discard the old Silica Gel sachet and squeeze the battery connector lug, whilst pulling upward to release.

Cut off tie wraps and use the new tie wraps supplied to tie the new battery into place before pushing the battery connector firmly into place

**Lightly smear the base section 'O' ring with silicon grease, MS4 or similar, place new Silica Gel sachet into place as shown on photo #4 and carefully screw base into the tubular section, ensuring that the Silica Gel sachet is not trapped between in the screw thread, and gently screw fully into place. Lightly smear the top 'O' ring with silicon grease, MS4 or similar and screw fully into place.**



Picture #1, removal of top



Picture #2, removal of base



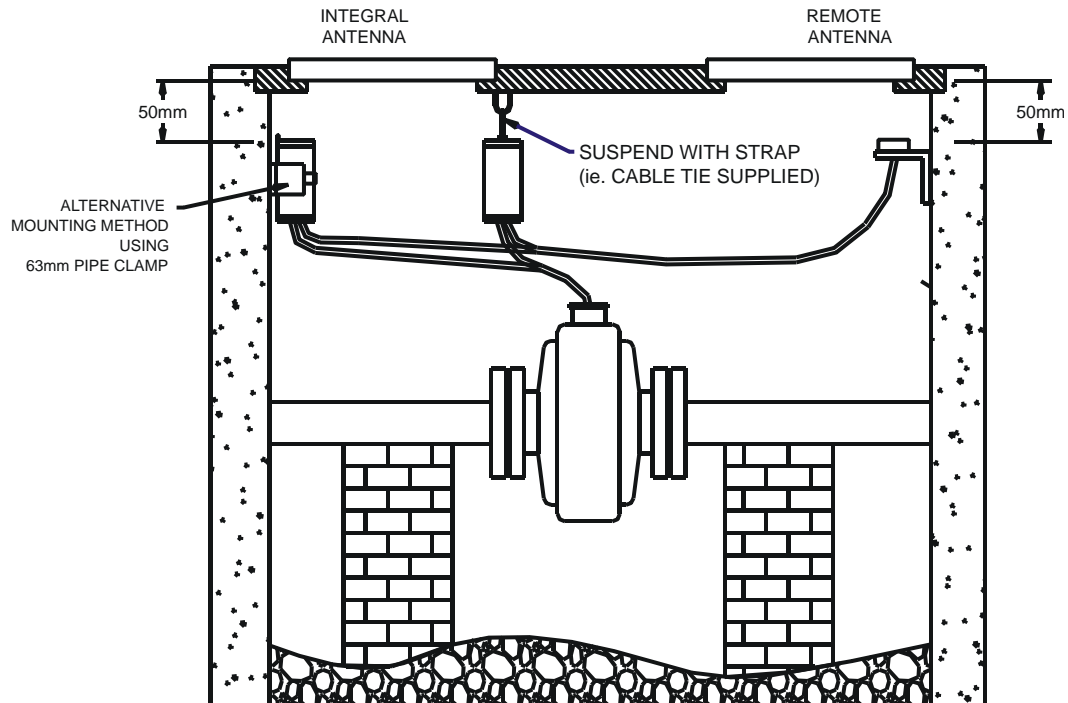
Picture #3, change of SIM card



Picture #4, assembly

## Appendix A – Mechanical Fixing

# Wall Bracket and Tie Wraps Supplied



GSM ANTENNA  
INSTALLATION