

Tel-me.info Command Documentation REV: 2.0 15th April 2004

1.0 General System Description:

The Tel-me.info remote monitoring and control system is a system that allows remote assets to be monitored and controlled remotely by means of a standard mobile phone over the GSM network. The system is operator independent and can be used to or from anywhere in the world. The basic system comprises of 4 elements:

- The remote unit itself together with the remote assets to be monitored an/or controlled
- The GSM network message carrier (operator) service
- A mobile phone capable of GSM text messaging (SMS)
- The user(s)

Communication is by means of simple text messages in a special format that allows a high degree of security (up to 6 digit PIN) whilst allowing a flexible naming system for monitored functions.

A complete system description an specification can be found at:

<http://www.oliver1.co.uk/tel-me/prodesc.pdf>

A demonstration system is currently running almost continuously and can be accessed by sending the following command message:

DEMO123 NUMBER 447*****

Type the message EXACTLY as the line above (upper case only and the O is an oh as in demo) but replace the 9 asterisks with the remainder of your valid UK mobile number. This number will receive a demonstration report from the system.

Send the message to: 07708728931

Note that the demonstration is limited to a report for obvious security reasons, none of the control command functions will operate. The response should arrive within 2 or three minutes depending on network latency and traffic volume. The demonstration may be switched off when being transported or when undergoing update.

This document describes the command and response format in detail.

2.0 Command Format:

All commands are sent from the user(s) mobile equipment (which is usually a standard GSM mobile Phone¹). Commands are sent in the form of text messages (SMS) in a specific format as follows:

2.1 All commands must be in upper case.

2.2 All command messages must include PIN - up to 6 digits. This is set during installation.

2.3 Whenever a message is sent to the remote unit, with one exception, it will respond whether set to ACTIVE or SILENT mode. This ensures that the message has been received and implemented. The exception is if the SILENT command is sent alone (see below).

3.0 Response message format:

Tel-me.info 123ABC (START) NNN (STATUS) AN1=123X AN2=456Y IN1=??? IN2=???
IN3=??? IN4=???IN5 IN6=??? IN7=??? IN8=??? OU1=??? OU2=??? OU3=???
OU4=???

Where:

123ABC is the station identity set during setup
(START) is sent once at power up with message 0
NNN is the message sequence number (0-255)

(STATUS) is ACTIVE or SILENT

AN1 and AN2 are the analogue measurement inputs, 123X is the value and unit
IN1 = IN8 are the input states, either alarm (AL!) or ok (OK).
OU1 - OU4 are the outputs and their states, ON or OFF.

NOTE: AN1, AN2, IN1 – IN8 and OU1 – OU4 are all names set during setup and installation and can be tailored to the particular devices, e.g. AN1 may be changed to BAT to indicate a battery, IN3 may be set to FIR to indicate a fire alarm or OU2 might be set to FRJ to indicate a refrigerator under control. Each name is limited to a three letter nemonic.

¹ Although a mobile phone is the usual source of control, specialised systems are available that allow monitoring and control with data logging from other devices such as PDA's and PC's including laptop devices via either a GSM modem or connected mobile phone. See full system description and product data for details.

4.0 Commands:

4.1 REPORT

Causes the remote to send an immediate status report. This will happen even if in silent mode. This does not cancel silent mode unless followed by ACTIVE, e.g. if the following message is sent:

123456 REPORT

The remote will always respond with message of the form:

Tel-me.info 123ABC 91 ACTIVE AN1=123X AN2=456Y etc..... the status, active or silent will be maintained as before.

Or, if this is sent:

123456 REPORT ACTIVE

The remote will respond with a message of the form:

Tel-me.info 123ABC 123 ACTIVE AN1=123X AN2=456Y etc..... and will be forced to enter active reporting mode.

Alternatively:

123456 REPORT SILENT

The remote will respond with message of the form:

Tel-me.info 123ABC 25 SILENT AN1=123X AN2=456Y etc..... and will be forced to enter silent mode.

4.2 SILENT

Causes remote to STOP SENDING REPORTS no matter what alarm events occur. Remote will not respond with any message unless preceded by REPORT command. Note that this could be dangerous as you will not know if the system is operational.

4.3 ACTIVE

Causes remote to START SENDING REPORTS whenever an alarm event occurs..

4.4 SWITCH

This function allows remote control of equipment and causes the remote to set the output state to that requested, for example:

```
123456 SWITCH OU1ON OU2OFF OU3ON OU4OFF
```

where OU1, OU2, OU3 and OU4 are the output names setup at installation (OU1 - OU4 are default). The above command will cause the output states to be set to:

OU1 to ON

OU2 to OFF

OU3 to ON

OU4 to OFF

irrespective of their previous state(s).

Note that only those outputs specifically mentioned will be changed, i.e. if OU2OFF was omitted from the above message, output 2 would be unaffected.

The output names may be in any order. There is a delay of approximately 25-50 milliseconds between the sequence states switching. This allows defined sequences to be carried out without interaction from previous states (you can turn the TV off then the radio on without having both on at once!)

Note that the remote WILL ALWAYS RESPOND to the switch command irrespective of whether the mode is SILENT or ACTIVE. The response will indicate the new current input and output state approximately 1 second after the command is received and executed.

5.0 Combining Commands:

Commands may be combined provided that the total message length does not exceed 60 characters including any spaces. For example, the following command is legitimate:

```
123456 REPORT SILENT SWITCH OU1ON OU2OFF OU3ON OU4OFF
```

Note that strictly speaking the report command is not needed as the switch command forces a reply but the system will enter silent mode after the response.

IMPORTANT NOTE:

The maximum message length is 60 characters. Any information beyond 60 characters may be ignored. To avoid this situation:

- a) omit the REPORT command where it is redundant.
- b) use only one space between message components