SRT330's Commands Specifications

Version: 2.0 – July 2014

Contents

Version History

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1.0	2012-03-26	Creation of base document	Emre Göçmen
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1.1	2012-03-26	First test firmware	Emre Göçmen
1.2	2012-03-26	First working firmware	Emre Göçmen
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1. General Information

In this document configuration parameters, commands and request commands are described in detail.

1.1. Configuration Commands

There are query and change commands. General form of the commands is stated below.

Query: CFG<index>?

Change/Clear: CFG<index>=[parameters]

All commands have to start with ‘CFG’ which is a constant string. After ‘CFG’ following field is the index field <index> which consists of 2 characters. It can take values between 00-99 or one of the following strings LB, SD, OO and MN. After these two fields, following character is a question mark or equal sign depending of the type of the command. If it is not a query command, lastly comes the parameters.

These commands are only accepted by the device if there is no master number configured in the device or the commands are sent by the master number.

1.2. Request Commands

In request commands unit is requested to do some task. This includes asking unit to send firmware and IMEI information and turning relay on/off. General form of the commands is stated below.

CFG**[command_specific_syntax]

All commands have to start with ‘CFG’ which is a constant string. After ‘CFG’ there are two asterisks. Then there is ‘command_specific_syntax’ which varies from one command to other. This is explained in detail in Section 4.

These commands are only accepted by the device if there is no master number configured in the device or the commands are sent by the master number.

2. Telephone Number Representation

2.1. Alarm and Report Numbers

These numbers should be defined as international numbers including country and area code so that the reports and alarm messages are sent correctly independent of the country that the unit is currently located in.

For instance, a mobile number of 0709123456 in Sweden should be specified as +46709123456. Permitted characters are 0-9, +.

2.2. SMS Access Number

Because this number can also be used as receiver of responses to commands sent to the unit, it should be defined as international number including country and area code.

For instance, a mobile number of 0709123456 in Sweden should be specified as +46709123456. Permitted characters are 0-9, +.

3. Configuration Commands

3.1. Parameters

In this section all the configuration parameters are listed and described in detail. Those parameters are general parameters, so every index has its specific configuration for each parameter. They are all formed of 3 characters followed by a corresponding value.

Parameter	Description
ATN*aax…x*	Access Telephone Numbers for alarms aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
BUZ*bb*	Buzzer configuration 00: Buzzer is disabled 01-98: Buzzer is enabled for the time defined by this value. (in seconds) 99: Buzzer is enabled
RLY*cc*	Relay configuration 00: Relay is disabled 01-98: Relay is enabled for the time defined by this value. (in seconds) 99: Relay is enabled
DTC*d*	Display Text Configuration 0: Incoming alarm text is shown on LCD screen 1: User defined text is shown on LCD screen
DTS*eey…y*	Display Text String for LCD screen ee: A 2-digit decimal number between 00 and 80 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string.
N01*aax…x*	First Telephone Number that incoming alarm/first user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T01*eey…y*	First User Defined Text that is going to be forwarded to the first telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*

Parameter	Description
N02*aax…x*	Second Telephone Number that incoming alarm/second user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T02*eey…y*	Second User Defined Text that is going to be forwarded to the second telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N03*aax…x*	Third Telephone Number that incoming alarm/third user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T03*eey…y*	Third User Defined Text that is going to be forwarded to the third telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N04*aax…x*	Fourth Telephone Number that incoming alarm/fourth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T04*eey…y*	Fourth User Defined Text that is going to be forwarded to the fourth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N05*aax…x*	Fifth Telephone Number that incoming alarm/fifth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.

Parameter	Description
T05*eey…y*	Fifth User Defined Text that is going to be forwarded to the fifth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N06*aax…x*	Sixth Telephone Number that incoming alarm/sixth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T06*eey…y*	Sixth User Defined Text that is going to be forwarded to the sixth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N07*aax…x*	Seventh Telephone Number that incoming alarm/seventh user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T07*eey…y*	Seventh User Defined Text that is going to be forwarded to the seventh telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N08*aax…x*	Eighth Telephone Number that incoming alarm/eighth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.

Parameter	Description
T08*eey…y*	Eighth User Defined Text that is going to be forwarded to the eighth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N09*aax…x*	Ninth Telephone Number that incoming alarm/ninth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T09*eey…y*	Ninth User Defined Text that is going to be forwarded to the ninth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*
N10*aax…x*	Tenth Telephone Number that incoming alarm/tenth user defined text is going to be forwarded to. aa: A 2-digit decimal number between 00 and 21 specifying the number of characters the following telephone number contains. (00 means it is empty) x…x: The telephone number. Permitted characters are ***0-9***, ***+***.
T10*eey…y*	Tenth User Defined Text that is going to be forwarded to the tenth telephone number. ee: A 2-digit decimal number between 00 and 99 specifying the number of characters the following string contains. (00 means it is empty) y…y: The string. *Note: If corresponding telephone number exists and this text is empty, incoming alarm will be forwarded to the number.*

3.2. Commands

3.2.1. Configuration of Records (Access Alarm Numbers)

3.2.1.1. Query All Parameters

3.2.1.1.1. Description

This command is used to read all parameters of specified record.

3.2.1.1.2. Syntax

Command:

CFGii?

Response:

ii:ATN*aax…x*BUZ*bb*RLY*cc*DTC*d*DTS*eey…y*N01*aax…x*N02*aax…x*N03*aax…x*N04*aax…x*N05*aax…x*N06*aax…x*N07*aax…x*N08*aax…x*N09*aax…x*N10*aax…x*T01*eey…y*T02*eey…y*T03*eey…y*T04*eey…y*T05*eey…y*T06*eey…y*T07*eey…y*T08*eey…y*T09*eey…y*T10*eey…y*

3.2.1.1.3. Parameters and Defined Values

ii: Record index. Index 02 – index 99 are reserved for the records.

For the others check parameters section.

3.2.1.1.4. Examples

Command	Response
CFG15?	15:ATN12+46123456789BUZ30RLY30DTC0DTS00N0112+46987654321N0200N0300N0400N0500N0600N0700N0800N0900N1000T0100T0200T0300T0400T0500T0600T0700T0800T0900T1000 (Index 15 has the configuration for the access telephone number +46123456789)
CFG99?	99:ATN00BUZ99RLY99DTC0DTS00N0100N0200N0300N0400N0500N0600N0700N0800N0900N1000T0100T0200T0300T0400T0500T0600T0700T0800T0900T1000 (Index 99 is empty – no access telephone number)
CFG8E?	??:ERROR (index is not valid)

3.2.1.2. Query Specific Parameters

3.2.1.2.1. Description

This command is used to read specific parameters of specified record.

3.2.1.2.2. Syntax

Command:

CFGii?<Parm1>,<Parm2>,…<ParmN>

Response:

ii:<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.1.2.3. Parameters and Defined Values

ii: Record index. Index 02 – index 99 are reserved for the records.

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

For the others check parameters section.

3.2.1.2.4. Examples

Command	Response
CFG21?ATN,BUZ,N01	21:ATN12+46987654321BUZ00N0100 (Index 21 has the configuration for the access telephone number +46987654321, buzzer is disabled and no number at first telephone number that alarm/user defined text is going to be forwarded to)
CFG03?ATN,BU	03:ERROR (parameter BU is not a valid parameter)
CFGA5?	??:ERROR (index is not valid)

3.2.1.3. Update Specific Parameters

3.2.1.3.1. Description

This command is used to change the specific parameters of specified record.

3.2.1.3.2. Syntax

Command:
CFGii=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

Response:
ii=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.1.3.3. Parameters and Defined Values

ii: Record index. Index 02 – index 99 are reserved for the records.
Parm: Configuration parameters that are going to be read.
value: The value of corresponding configuration parameter.
For the others check parameters section.

3.2.1.3.4. Examples

Command	**Response**
CFG36=ATN12+46712345678RLY30N0112+4670123456 7T0105ALARM (Index 36 will have the configuration for the access telephone number +46712345678; relay is enabled for 30 seconds and 'ALARM' message will be sent to +46701234567 after an alarm is received)	36=ATN12+46712345678RLY30N0112 +46701234567T0105ALARM
CFG55=BUZ60DTC2DTS18Alarm is received!	55:ERROR (DTC parameter can be 0 or 1 - value error)
CFG4C=DTC1DTS05ALARM	??:ERROR (index is not valid)

3.2.2. Configuration of Unknown Numbers

3.2.2.1. Query All Parameters

3.2.2.1.1. Description

This command is used to read all parameters and corresponding values of unknown numbers' configuration.

3.2.2.1.2. Syntax

Command:

CFG00?

Response:

00:ATN*01x*BUZ*bb*RLY*cc*DTC*d*DTS*eey…y*N01*aax…x*N02*aax…x*N03*aax…x*N04*aax…x*N05*aax…x*N06*aax…x*N07*aax…x*N08*aax…x*N09*aax…x*N10*aax…x*T0100T0200T0300T0400T0500T0600T0700T0800T0900T1000

3.2.2.1.3. Parameters and Defined Values

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit accepts alarms from unknown numbers and handle it according to the parameters defined in this configuration, otherwise unit ignores the incoming alarms from unknown numbers.

Tnn parameters have to be empty so you will get Tnn00 as response. (nn: 01-10)

For the others check parameters section.

(Index 00 is reserved for Unknown Numbers' Configuration)

3.2.2.1.4. Examples

Command	Response
CFG00?	00:ATN011BUZ60RLY60DTC0DTS00N0112+46987654321N0200N0300N0400N0500N0600N0700N0800N0900N1000T0100T0200T0300T0400T0500T0600T0700T0800T0900T1000 (Receiving alarms from unknown numbers is enabled; buzzer and relay will be enabled for 60 seconds and incoming alarm is going to be sent to +46987654321 after an alarm is received)

3.2.2.2. Query Specific Parameters

3.2.2.2.1. Description

This command is used to read specific parameters of unknown numbers' configuration.

3.2.2.2.2. Syntax

Command:

CFG00?<Parm1>,<Parm2>,…<ParmN>

Response:

00:<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.2.2.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit accepts alarms from unknown numbers and handle it according to the parameters defined in this configuration, otherwise unit ignores the incoming alarms from unknown numbers.

Tnn parameters have to be empty so you will get Tnn00 as response. (nn: 01-10)

For the others check parameters section.

(Index 00 is reserved for Unknown Numbers' Configuration)

3.2.2.2.4. Examples

Command	Response
CFG00?ATN,N05,T05	00:ATN010N0500T0500 (Unknown number configuration is disabled; no phone number and no text are defined for the fifth forwarding place after an alarm is received)
CFG00?N01,N02,N33	00:ERROR (parameter N33 is not a valid parameter)

3.2.2.3. Update Specific Parameters

3.2.2.3.1. Description

This command is used to change the specific parameters of unknown numbers' configuration.

3.2.2.3.2. Syntax

Command:

CFG00=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

Response:

00=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.2.3.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit accepts alarms from unknown numbers and handle it according to the parameters defined in this configuration, otherwise unit ignores the incoming alarms from unknown numbers.

Tnn parameters have to be empty so it is only accepted if you send Tnn00. (nn: 01-10)

For the others check parameters section.

(Index 00 is reserved for Unknown Numbers' Configuration)

3.2.2.3.4. Examples

Command	Response
CFG00=ATN011DTC1DTS19Unidentified Alarm! (Receiving alarms from unknown numbers will be enabled; 'Unidentified Alarm!' will be written on LCD screen after an alarm is received)	00=ATN011DTC1DTS19Unidentified Alarm!
CFG00=ATN015	00:ERROR (ATN parameter can be 0 or 1 in unknown numbers' configuration - value error)
CFG00=DTC1DTS05ALARMT0505Room1	00:ERROR (parameter T05 can only be empty)

3.2.3. Configuration of Push Button Alarm

3.2.3.1. Query All Parameters

3.2.3.1.1. Description

This command is used to read all parameters and corresponding values of push button alarm configuration.

3.2.3.1.2. Syntax

Command:

CFG01?

Response:

01:ATN*01x*BUZ*bb*RLY*cc*DTC*1*DTS*eey…y*N01*aax…x*N02*aax…x*N03*aax…x*N04*aax…x*N05*aax…x*N06*aax…x*N07*aax…x*N08*aax…x*N09*aax…x*N10*aax…x*T01*eey…y*T02*eey…y*T03*eey…y*T04*eey…y*T05*eey…y*T06*eey…y*T07*eey…y*T08*eey…y*T09*eey…y*T10*eey…y*

3.2.3.1.3. Parameters and Defined Values

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit detects push button alarms and handle it according to the parameters defined in this configuration, otherwise unit does not detect push button.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'PushButton Alarm!' will be written on LCD screen.

For the others check parameters section.

(Index 01 is reserved for Push Button Alarm Configuration)

3.2.3.1.4. Examples

Command	Response
CFG01?	01:ATN011BUZ15RLY15DTC1DTS16PushButtonAlarm!N0100N0200N0300N0400N0500N0600N0700N0800N0900N1000T0100T0200T0300T0400T0500T0600T0700T0800T0900T1000 (Push button alarm is enabled; buzzer & relay will be enabled for 15 seconds and 'PushButtonAlarm!' will be written on LCD screen after push button alarm is detected)

3.2.3.2. Query Specific Parameters

3.2.3.2.1. Description

This command is used to read specific parameters of push button alarm configuration.

3.2.3.2.2. Syntax

Command:

CFG01?<Parm1>,<Parm2>,…<ParmN>

Response:

01:<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.3.2.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling & disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit detects push button alarms and handle it according to the parameters defined in this configuration, otherwise unit does not detect push button.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'PushButton Alarm!' will be written on LCD screen.

For the others check parameters section.

(Index 01 is reserved for Push Button Alarm Configuration)

3.2.3.2.4. Examples

Command	Response
CFG01?ATN,DTC,DTS,BUZ,RLY	01:ATN010DTC1DTS00BUZ15RLY30 (Push button alarm is disabled; buzzer & relay will be enabled for 15 and 30 seconds respectively)
CFG01?T01,T11	01:ERROR (parameter T11 is not a valid parameter)

3.2.3.3. Update Specific Parameters

3.2.3.3.1. Description

This command is used to change the specific parameters of push button alarm configuration.

3.2.3.3.2. Syntax

Command:

CFG01=<Parm1><Parm2>…<ParmN>

Response:

01=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.3.3.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1 then unit detects push button alarms and handle it according to the parameters defined in this configuration, otherwise unit does not detect push button.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'PushButton Alarm!' will be written on LCD screen.

For the others check parameters section.

(Index 01 is reserved for Push Button Alarm Configuration)

3.2.3.3.4. Examples

Command	Response
CFG01=ATN011N0712+46707654321T0707PB-Larm (push button alarms will be enabled; 'PB-Larm' will be sent to +46707654321 after it is detected)	01=ATN011N0712+46707654321T0707PB-Larm
CFG01=DTC0ATN010	01:ERROR (DTC can be only 1 - value error)
CFG01=DTF1DTS05ALARM	00:ERROR (parameter DTF is not a valid parameter)

3.2.4. Configuration of Low Battery Alarm

3.2.4.1. Query All Parameters

3.2.4.1.1. Description

This command is used to read all parameters and corresponding values of low battery alarm configuration.

3.2.4.1.2. Syntax

Command:

CFGLB?

Response:

LB:ATN*01x*BUZ*bb*RLY*cc*DTC*1*DTS*eey…y*N01*aax…x*N02*aax…x*N03*aax…x*N04*aax…x*N05*aax…x*N06*aax…x*N07*aax…x*N08*aax…x*N09*aax…x*N10*aax…x*T01*eey…y*T02*eey…y*T03*eey…y*T04*eey…y*T05*eey…y*T06*eey…y*T07*eey…y*T08*eey…y*T09*eey…y*T10*eey…y*

3.2.4.1.3. Parameters and Defined Values

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit detects low battery voltage it handles it according to the parameters defined in this configuration, otherwise unit does not do anything when it detects low battery voltage.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Low Battery!' will be written on LCD screen.

For the others, check parameters section.

3.2.4.1.4. Examples

Command	Response
CFGLB?	LB:ATN011BUZ20RLY30DTC1DTS11LowBattery!N0100N0212+46701234567N0300N0400N0500N0600N0700N0800N0900N1000T0100T0203L_BT0300T0400T0500T0600T0700T0800T0900T1000 (Low battery alarm is enabled; buzzer & relay will be enabled for 20 & 30seconds respectively and 'LowBattery!' will be written on LCD screen after low battery voltage is detected. 'L_B' will be sent to +46701234567)

3.2.4.2. Query Specific Parameters

3.2.4.2.1. Description

This command is used to read specific parameters of low battery alarm configuration.

3.2.4.2.2. Syntax

Command:

CFGLB?<Parm1>,<Parm2>,…<ParmN>

Response:

LB:<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.4.2.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit detects low battery voltage it handles it according to the parameters defined in this configuration, otherwise unit does not do anything when it detects low battery voltage.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Low Battery!' will be written on LCD screen.

For the others check parameters section.

3.2.4.2.4. Examples

Command	Response
CFGLB?ATN,N03,N05,T03,T05	LB:ATN011N0312+46701234567N0512+46787654321T0323Low Battery From Unit 1T0523Low Battery From Unit 1 (Low Battery alarm is enabled; 'Low Battery From Unit 1' will be sent to +46701234567 and +46787654321 when low battery voltage is detected)
CFGLB?ATM	LB:ERROR (parameter ATM is not a valid parameter)

3.2.4.3. Update Specific Parameters

3.2.4.3.1. Description

This command is used to change the specific parameters of low battery alarm configuration.

3.2.4.3.2. Syntax

Command:

CFGLB=<Parm1>,<Parm2>,…<ParmN>

Response:

LB=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.4.3.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit detects low battery voltage it handles it according to the parameters defined in this configuration, otherwise unit does not do anything when it detects low battery voltage.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Low Battery!' will be written on LCD screen.

For the others check parameters section.

3.2.4.3.4. Examples

Command	Response
CFGLB=N1012+46707654321T1010LowBattery ('LowBattery' will be sent to +46707654321 after it is detected if this mode is enabled.)	LB=N1012+46707654321T1010LowBattery
CFGLB=T0533Unit 5 - Low Battery is Detected!DTC0	LB:ERROR (DTC can be only 1 - value error)
CFGLB=ATB011N0712+46707654321	LB:ERROR (parameter ATB is not a valid parameter)

3.2.5. Configuration of Shutdown Alarm

3.2.5.1. Query All Parameters

3.2.5.1.1. Description

This command is used to read all parameters and corresponding values of shutdown alarm configuration.

3.2.5.1.2. Syntax

Command:

CFGSD?

Response:

SD:ATN*01x*BUZ*00*RLY*00*DTC*1*DTS*eey…y*N01*aax…x*N02*aax…x*N03*aax…x*N04*aax…x*N05*aax…x*N06*aax…x*N07*aax…x*N08*aax…x*N09*aax…x*N10*aax…x*T01*eey…y*T02*eey…y*T03*eey…y*T04*eey…y*T05*eey…y*T06*eey…y*T07*eey…y*T08*eey…y*T09*eey…y*T10*eey…y*

3.2.5.1.3. Parameters and Defined Values

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit is shutting down it handles this according to the parameters defined in this configuration, otherwise unit does not do anything while shutting down.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Shutting Down!' will be written on LCD screen.

BUZ & RLY parameters have to be 0 so you will get BUZ00 & RLY00 in the response.

For the others check parameters section.

3.2.5.1.4. Examples

Command	Response
CFGSD?	SD:ATN011BUZ00RLY00DTC1DTS14Shutting Down!N0112+46798765432 N0200N0300N0400N0500N0600N0700N0800N0900N1000T0113ShuttingDown! T0200T0300T0400T0500T0600T0700T0800T0900T1000 (Shutdown alarm is enabled, buzzer & relay are disabled, 'Shutting Down!' will be written on LCD screen and 'ShuttingDown!' will be sent to +46798765432 before shutdown)

3.2.5.2. Query Specific Parameters

3.2.5.2.1. Description

This command is used to read specific parameters of shutdown alarm configuration.

3.2.5.2.2. Syntax

Command:

CFGSD?<Parm1>,<Parm2>,…<ParmN>

Response:

SD:<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.5.2.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit is shutting down it handles this according to the parameters defined in this configuration, otherwise unit does not do anything while shutting down.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Shutting Down!' will be written on LCD screen.

BUZ & RLY parameters have to be 0 so you will get BUZ00 & RLY00 in the response.

For the others check parameters section.

3.2.5.2.4. Examples

Command	Response
CFGSD?ATN,DTC,DTS	SD:ATN011DTC1DTS14Shutting Down! (Shutdown alarm is enabled; 'Shutting Down!' will be written on LCD screen before shutdown)
CFGSD?RLU,BUZ,T01	SD:ERROR (parameter RLU is not a valid parameter)

3.2.5.3. Update Specific Parameters

3.2.5.3.1. Description

This command is used to change the specific parameters of shutdown alarm configuration.

3.2.5.3.2. Syntax

Command:

CFGSD=<Parm1>,<Parm2>,…<ParmN>

Response:

SD=<Parm1><value1><Parm2><value2>…<ParmN><valueN>

3.2.5.3.3. Parameters and Defined Values

Parm: Configuration parameters that are going to be read.

value: The value of corresponding configuration parameter.

ATN parameter is used as enabling&disabling parameter so it can be 0 or 1 in this special case. If it is set 1, when unit is shutting down it handles this according to the parameters defined in this configuration, otherwise unit does not do anything while shutting down.

DTC parameter is always 1 since there aren't any incoming alarms in this case and it is not possible to change the value of this parameter to 0. If DTS parameter is empty then 'Shutting Down!' will be written on LCD screen.

BUZ & RLY parameters have to be 0 so it is only accepted if you send BUZ00 or RLY00.

For the others check parameters section.

3.2.5.3.4. Examples

Command	Response
CFGSD=N0112+46707654321T0114Shutting Down!N0212+46712345678T0219Unit is turned off! ('Shutting Down!' will be sent to +46707654321 and 'Unit is turned off!' will be sent to +46712345678 before shutdown if this mode is enabled)	SD=N0112+46707654321T0114Shutting Down!N0212+46712345678T0219Unit is turned off!
CFGSD=ATN011DTC0	SD:ERROR (DTC can be only 1 - value error)
CFGSD=RLY05DTC1	SD:ERROR (RLY can be only 00 - value error)
CFGSD=N1112+46701234567T1114Shutting Down!	SD:ERROR (parameters N11 and T11 are not valid parameters)

3.2.6. Factory Settings

3.2.6.1. Description

This command is used to configure unit with the default factory settings.

3.2.6.2. Syntax

Command:

CFGDELALL

Response:

All parameters have been reset!

3.2.6.3. Parameters and Defined Values

In default factory settings there are no access alarm numbers defined; unknown numbers are not accepted; push button alarm, low battery alarm and shutdown alarm are enabled and on/off transmission is enabled. Buzzer and relay are not enabled in all configurations. User defined text is shown on LCD screen for push button alarm, low battery alarm and shutdown alarm since there couldn’t be any incoming texts in these cases. If no text is defined for the LCD screen, then in these cases a hardcoded text will be displayed.

3.2.6.4. Examples

Command	Response
CFGDELALL	All parameters have been reset!
CFGDELALL	Flash Write Error... Parameters couldn't be reset!

4. Request Commands

4.1. Set Relay On

4.1.1. Description

This command is used to set the relay on.

4.1.2. Syntax

Command:
CFG**RLYON#

Response:
**RLYON

Response will only be received if '#' is appended at the end of the command. If '#' is omitted no response will be received.

4.1.3. Parameters and Defined Values

RLY: Relay of the unit.

4.1.4. Examples

Command	Response
CFG**RLYON#	**RLYON (Relay is turned on)
CFG**RLYON	 (Relay is turned on but no response is received)
CFG**RLUON#	CFG**RLUON# ERROR (RLU is not a valid parameter)
CFG**RLYon#	CFG**RLYon# ERROR (on is not written in the upper case)
CFG**RLYon	CFG**RLYon ERROR (on is not written in the upper case)

4.2. Set Relay Off

4.2.1. Description

This command is used to turn the relay off.

4.2.2. Syntax

Command:
CFG**RLYOFF#

Response:
**RLYOFF

Response will only be received if '#' is appended at the end of the command. If '#' is omitted no response will be received.

4.2.3. Parameters and Defined Values

RLY: Relay of the unit.

4.2.4. Examples

Command	Response
CFG**RLYOFF#	**RLYOFF (Relay is turned off)
CFG**RLYOFF	 (Relay is turned off but no response is received)
CFG**RLUOFF#	CFG**RLUOFF# ERROR (RLU is not a valid parameter)
CFG**RLYoff#	CFG**RLYoff# ERROR (off is not written in the upper case)
CFG**RLYof	CFG**RLYof ERROR (off is not spelled correctly)

4.3. Set Relay On for a Certain Time

4.3.1. Description

This command is used to turn the relay on for a specified amount of time.

4.3.2. Syntax

Command:
CFG**RLYiii#

Response:
**RLYiii

The response will only be received if '#' is appended at the end of the command. If '#' is omitted no response will be received.

4.3.3. Parameters and Defined Values

RLY: RLY of the unit.
iii: Time is seconds, can be varied from 000-999.

4.3.4. Examples

Command	Response
CFG**RLY008#	**RLY008 (Relay is turned on for 8 seconds)
CFG**RLY008	 (Relay is turned on for 8 seconds but no response is received)
CFG**RLY252#	**RLY252 (Relay is turned on for 252 seconds)
CFG**RLU010#	CFG**RLU010# ERROR (RLU is not a valid parameter)
CFG**RLY01#	CFG**RLY01# ERROR (01 are two digits, should be at least three digits)

4.4. Unit Information Query

4.4.1. Description

This command is used to inquire unit about its firmware version and IMEI number.

4.4.2. Syntax

Command:
CFG**INFO?

Response:
SW Ver:x.x, IMEI: iiiiiiiiiiiiii

4.4.3. Parameters and Defined Values

x.x:	Software version where each x can vary from 1 to 9.
iiiiiiiiiiiiii:	15 digit IMEI number where each i can vary from 0 to 9.

4.4.3. Examples

Command	Response
CFG**INFO?	SW Ver:1.3, IMEI: 359193031613060 (For this specific unit sw version is 1.3 and IMEI number is 359193031613060)
CFG**info?	CFG**info? ERROR (info is not written in the right case)
CFG**INFO	CFG**INFO ERROR (? symbol is missing)

5. Notes

Default settings are stated under the parameters and defined values part of factory settings.

Initially units do not have “master number” but if it is configured later on, it can be changed/removed by only connecting the device to a PC and using the configuration tool. SMS command for converting unit back into factory settings has no effect on “master number”.