

# 12 Sony CMD-Z5 / Z18 / Z28 extended commands

Version 1.0.2 from 11<sup>th</sup> February 2002

## Foreword

This document is designed as addendum to 3GPP TS 27.007 version 4.2.0 Release 4 (ETSI TS 127 007 V4.2.0 (2001-07) Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); AT command set for User Equipment (UE)) which can be downloaded free of charge at:

[http://pda.etsi.org/pda/home.asp?wki\\_id=14426](http://pda.etsi.org/pda/home.asp?wki_id=14426)

It is recommended to read and understand most of its context. All used references and abbreviations are defined there.

The audience should be application developers who want to add this functionality to a current software product or create a new application. End consumers should have a look at the "Z5 Manager":

<http://www.cmd-z5.com/z5mgr.htm>

The content of the current document has not been published by Sony Ericsson Mobile Communications. It is the result of intense research of several private individuals at:

[http://www.handykult.de/cgi-bin/ultimatebb.cgi?ubb=get\\_topic&f=22&t=000547](http://www.handykult.de/cgi-bin/ultimatebb.cgi?ubb=get_topic&f=22&t=000547)

A lot of aspects are still unknown and unclear. Even the here described syntax could be **totally** wrong. But there are no further commands (calendar or ringtones). If you have additional information useful for the purpose of this document please contact one of the authors at:

<http://www.traud.de/gsm/sony.htm>

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But anyway: Please Sony finish this *great* AT command interface (it is not complete and very unstable)!

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## 12.1 Read complex entry phonebook -SCER

| Command       | Possible response(s)  |
|---------------|---|
| -SCER=<index> | <p>-SCER: &lt;index&gt;,&lt;name&gt;,&lt;group&gt;, "TELNO",&lt;icon1&gt;,&lt;number1&gt;,&lt;TELNO&gt;,[&lt;icon2&gt;],[&lt;number2&gt;],"TELNO", [&lt;icon3&gt;],[&lt;number3&gt;],"CUSTOM", [&lt;icon4&gt;],[&lt;text1&gt;],"CUSTOM", [&lt;icon5&gt;],[&lt;text2&gt;]</p> <p><b>if empty / invalid:</b><br/>+CME ERROR: 21</p> |
| -SCER=?       | <p>-SCER: (list of supported &lt;index&gt;s),&lt;used&gt;,&lt;tlength&gt;,(list of all &lt;group&gt;s...<i>unknown</i></p> <p><b>Warning:</b> This command reboots the phone.</p>   |

### Description

Execution command returns the phonebook entry in location number <index>. <index>=1 is the first entry within "ME" (+CPBR), <index>=501 is the first entry on "SM" (+CPBR). The maximum size of <index> is 500 plus size of "SM". Starting with <index>=510 there is no 1:1 correlation to +CPBR anymore. Group is empty (" ") if entry is within no group or within a group without a name. Range queries are not possible, load each <index> individually.

Unused <index> returns +CME ERROR: 21.

### Defined values

<index>: integer type value in the range of location numbers of phonebook memory

<name>: string type field of maximum length <tlength>;  
character set: "GSM" (3GPP TS 23.038 [25]) with complete extension table  
only the "@" is on 0x8F instead of 0x00.

<group>: string type field of maximum length <tlength>;  
character set: "GSM" (3GPP TS 23.038 [25]) with complete extension table  
only the "@" is on 0x8F instead of 0x00.

<icon1>,<icon2>,<icon3>: string type field of maximum of seven different icon names;  
character set: UTF-8 (Unicode)  
Note: This field varies with the language setting within the phone, for example:  
English: Phone, Home, Office, Mobile, Fax, Pager, Etc...  
German: Telefon, Heim, Büro, Mobil, Fax, Funkrufempfänger, Etc...  
Early firmwares do have slightly other icon names.

<icon4>,<icon5>: string type field of maximum of 48 different icon names;  
character set: UTF-8 (Unicode)  
Note: This field varies with the language setting within the phone.

<numberx>: string type phone number. International numbers do have a "+" in front.

<textx>: string type field of maximum length 120;  
character set: "GSM" (3GPP TS 23.038 [25]) with complete extension table  
only the "@" is on 0x8F instead of 0x00.

<used>: integer type value indicating the number of used locations in phonebook memory

<tlength>: integer type value: 20

## Limitations

You can only issue around 405 times -SCER=<index>. If you do more the phone will reboot. To get again 405 times you have to switch off and on the mobile (not available via AT commands).

## Examples

This is my personal way of loading the complex entry phonebook to avoid reboots of the phone.  
Loading the "ME" phonebook (-SCER equals +CPBR) tells you which <index> are used and have to be queried via -SCER

```
AT+CPBS="ME"
AT+CPBR=1,500
for( index=1; index <= 500; index++)
    if (<index> isUsed)
        AT-SCER=<index>
```

(has to be issued separately)

Now load the "SM" phonebook. Complex entries on "SM" use up to three entries on "SM". Consequently you have to count down the numbers within a complex entry from the total "SM" (SMcount). First load entry 1-9 (called: Priority entries) which are the same <index> within the complex phonebook (<index>=501..509).

Illustration: I have a complex entry on -SCER=501 with three numbers. <number1> is on "SM" <index>=1, the rest are at 12 and 15 (+CPBR). You get these numbers only via -SCER=501.

```
AT+CPBS="SM"
AT+CPBR=?
AT+CPBR=1,<maxSIMValue>
for( index=501; index <= 509; index++)
    if (<index> isUsed)
        AT-SCER=<index>
        SMcount - entries
```

(has to be issued separately)

(for Priority entries)

For the rest of the "SM" you have to go one by one through the complex entry list, because you do not know which are used.

Illustration: I have an entry on "SM" <index>=98 (+CPBR) but is reported on -SCER=511.

```
for( index=510; 0 < SMcount && index <= 500+<maxSIMValue>; index++)
    AT-SCER=<index>
    SMcount - entries
```

(for the rest of SM)

## 12.2 Write complex entry phonebook -SCEW

| Command   | Possible response(s)   |
|---|--|
| -SCEW=[<index>],<name>,[<group>],<br>"TELNO", [<icon1>],<number1><br>[ , "TELNO", [<icon2>],<number2><br>[ , "TELNO", [<icon3>],<number3>]] | <b>if invalid:</b><br>+CME ERROR: 21   |
| -SCEW=?   | -SCEW: (list of supported <index>s),<used>,<br><tlength>, (list of all <group>s... <i>unknown</i><br><br><b>Warning:</b> This command reboots the phone. |

### Description

Execution command writes a complex entry in location number <index>. Previous entry will be overwritten and as consequence the textfields get deleted. If <index> is left out, but complete first TELNO is given, entry is written to the first free location in the phonebook. Unknown <group> will be set to „no group“ status. Unknown <icon> will be set to „Phone“.

Invalid <index> returns +CME ERROR: 21.

## Defined values

see chapter: 12.1 Read complex entry phonebook -SCER

## Limitations

If <index> isn't the first free location in the phonebook, you have to switch off and on the mobile (not available via AT commands) to see the entry within the mobile's man machine interface. Via AT interface the complex entry is always accessible.

Unfortunatly there are several bugs, which prevent writing text fields. The AT command interface only listens to the first three "TELNO" / "CUSTOM" fields. And there is a problem within the interpretation of "CUSTOM" fields:

```
AT-SCEW=[<index>],<name>,[<group>],"TELNO", [<icon1>],<number1>,
"CUSTOM", ,,"CUSTOM", [<icon5>],<text2>
```

This writes the first number and the second text field. All other fields are deleted / empty. The first "CUSTOM" field is ignored but must be present.

## Examples

```
AT-SCEW=511,"Alex","Colleague","TELNO","Fax","+491234567",
"TELNO","Home","+49427948247"
```

Note: Previous information said to use +CPBW to create a new entry. This is not necessary and even does not work because <index> is ignored totally within +CPBW.

By the way Sony has no leading "+" within +CPBR/+CPBW with <type>=145.

## 12.3 Delete complex entry -SCED

| Command       | Possible response(s)  |
|---------------|---|
| -SCED=<index> | <b>if empty/invalid:</b><br>+CME ERROR: 21  |
| -SCED=?       | -SCED: (list of supported <index>s),<used>,<tlength>,<br>(list of all <group>s... <i>unknown</i><br><br><b>Warning:</b> This command reboots the phone. |

## Description

Action command deletes <index> of complex entry phonebook.

Unused <index> returns +CME ERROR: 21.

## Defined values

see chapter: 12.1 Read complex entry phonebook -SCER

## Limitations

n/a

## Examples

|           |                       |
|-----------|-----------------------|
| AT-SCED=1 | (deletes first entry) |
|-----------|-----------------------|

## 12.4 Read caller list entry -SCLR

| Command                 | Possible response(s)  |
|-------------------------|---|
| -SCLR=<storage>,<index> | <storage>,<index>,<numberx>,<name>,[<date>]<br><b>if empty / invalid:</b><br>+CME ERROR: 21 |
| -SCLR=?                 | -SCLR: (list of supported <storage>s)   |

### Description

Execution command returns the phonebook entry in location number <index> and phonebook <storage>. Values for <index> are the same as via +CPBR. Range queries are not possible, load each <index> individually. They include a time stamp if the call was issued / missed / received on Sony mobile. Numbers not known to the complex entry phonebook have an empty name (""). Callers who do not transmit their number are listed with an empty number and name.

Unused <index> returns +CME ERROR: 21.

### Defined values

<storage>: standard phonebook memory storages "LD", "MC", "RC"  
values see chapter: 8.11 Select phonebook memory storage +CPBS  
<date>: "<dayNum>/<monthNum> <dayShortName> <hour24>:<minutes>"  
for rest see chapter: 12.1 Read complex entry phonebook -SCER

### Limitations

n/a

### Examples

```
AT-SCLR="LD",1
"LD",1,"+499911","Mailbox","23/11 FR 14:44" (result)
```

## 12.5 Read general entry -SGER

| Command                 | Possible response(s)  |
|-------------------------|---|
| -SGER=<storage>,<index> | -SGER: <index>,<name>,<number1><br><b>if empty / invalid:</b><br>+CME ERROR: 21 |
| -SGER=?                 | -SGER: (list of supported <storage>s)   |

### Description

Execution command returns the phonebook entry in location number <index> and phonebook <storage>. Values for <index> are the same as via +CPBR. Range queries are not possible, load each <index> individually.

Unused <index> returns +CME ERROR: 21.

### Defined values

<storage>: standard phonebook memory storages "SM", "FD", "ON", "SD", "ME"

values see chapter: 8.11 Select phonebook memory storage +CPBS  
 "SD" SIM Service Dialing list  
 for rest see chapter: 12.1 Read complex entry phonebook -SCER

### Limitations

Reason for implementation of this command is unknown.

### Examples

AT-SGER="SM",1  
 -SGER: 1,"Alex","+499911" (result)

## 12.6 Write general entry -SGEW

| Command                                  | Possible response(s)                  |
|--|---------------------------------------|
| -SGEW=<storage>,<index>,<name>,<number1> | <b>if invalid:</b><br>+CME ERROR: 21  |
| -SGEW=?                                  | -SGEW: (list of supported <storage>s) |

### Description

Execution command writes the phonebook entry in location number <index> and phonebook <storage>. If <index> was previous unused, it will be ignored by mobile and saved to the first free location, but not to the "SM" Priority entries. Values for <index> are the same as via +CPBW.

### Defined values

<storage>: standard phonebook memory storages "SM", "ON"  
 values see chapter: 8.11 Select phonebook memory storage +CPBS  
 for rest see chapter: 12.1 Read complex entry phonebook -SCER

### Limitations

Reason for implementation of this command is unknown.

### Examples

AT-SGEW="SM",1,"Alex","+499911" (writes first entry on "SM")

## 12.7 Delete general entry -SGED

| Command                 | Possible response(s)                  |
|-------------------------|---------------------------------------|
| -SGED=<storage>,<index> | <b>if invalid:</b><br>+CME ERROR: 21  |
| -SGED=?                 | -SGED: (list of supported <storage>s) |

### Description

Action command deletes the phonebook entry in location number <index> and phonebook <storage>. Values for <index> are the same as via +CPBW.

### Defined values

<storage>: standard phonebook memory storages "SM", "ON"  
values see chapter: 8.11 Select phonebook memory storage +CPBS  
for rest see chapter: 12.1 Read complex entry phonebook -SCER

### Limitations

Reason for implementation of this command is unknown.

### Examples

AT-SGED="SM", 1 (deletes first entry on "SM")

## 12.8 Software Modem -SWM

| Command     | Possible response(s)              |
|-------------|-----------------------------------|
| -SWM=<mode> |                                   |
| -SWM=?      | -SWM: <mode>                      |
| -SWM=?      | -SWM: (list of supported <mode>s) |

### Description

Syntax seems to be fully understood – seems to be a binary interface, could be as powerful as Nokia's FBUS.  
Please help...

### Defined values

|         |   |
|---------|---|
| <mode>: | 0 off   |
|         | 1 seems to activate the binary interface for the EasyCom (QN-2EC) Software Fax V.42 (MNP) ? |

### Limitations

n/a

### Examples

AT-SWM=1

## 12.9 Read ring melody -SRMR

| Command         | Possible response(s)  |
|-----------------|---|
| -SRMR=[<n0>], 0 | -SRMR:  |
| <b>or</b>       |   |
| -SRMR=[<n1>], 1 |   |
| -SRMR=?         | -SRMR: (list of supported <n0>s), (0), (list of supported <n1>s), (1) |

### Description

Syntax seems to be fully understood – but you get every time nothing else back than "-SRMR:".

### Defined values

|       |  |
|-------|--|
| <n0>: | integer type value in the range of 1-25; test command returns "1-20" |
| <n1>: | integer type value in the range of 1-5; test command returns "1, 5"  |

## Limitations

n/a

## Examples

```
AT-SRMR=25,0
AT-SRMR=5,1
AT-SRMR=,,
```

## 12.10 Store ring melody -SRMS

| Command  | Possible response(s)                                     |
|--|--|
| -SRMS=<n>,<string1><br>[ ,<string2>,... <i>unknown</i> ] | OK   |
| -SRMS?   | OK   |
| -SRMS=?  | -SRMS: (list of supported <n>s), (1-32), (5-8), (25-900) |

## Description

Syntax **not** fully understood. Returns only "OK". Other syntax returns "ERROR" or reboots. Please help...

## Defined values

|                    |  |
|--------------------|--|
| <n>:               | integer type value in the range of 1-5         |
| <string1>:         | string type field of an unknown maximum length |
| ... <i>unknown</i> |  |

## Limitations

Reboots the phone very often. AT interface does not like empty strings or left out strings everywhere.

## Examples

n/a

## 12.11 Unknown -SMEL

| Command  | Possible response(s)                       |
|--|--|
| -SMEL=<stringx>,<indexx>,<indexx><br>[ ,... <i>unknown</i> ] | <i>unknown</i>                             |
| -SMEL?   | -SMEL: "DxM", "...not displayable...^L", 0 |
| -SMEL=?  | -SMEL: (1-5), (1-32), (50-255), (1-100)    |

## Description

Syntax **not** fully understood. Other syntax at the first three fields return "ERROR", otherwise I get a reboot which looks like good syntax. Please help...

## Defined values

|            |  |
|------------|--|
| <stringx>: | string type field of an unknown maximum length |
| <indexx>:  | integer type value in an unkown range          |

*...unknown*

### **Limitations**

Reboots the phone very often. AT interface does not like empty strings or left out strings everywhere.

### **Examples**

n/a

## **12.12 Complete unknown commands**

- SCT
- STR
- SWT
- SCES
- SCFV
- SCLV
- SGES
- SGFV

## 12.13 +C command responses

'According to ITU-T V.25ter (07/97):

'only the commands which effect GSM/UMTS

'6.1.8 ISO system global object identification

AT+GOI

ERROR

ERROR

'6.1.9 Overall capabilities of TA

AT+GCAP

+GCAP: +CS, +GS, +IS

'6.2.12 Flow control

AT+IFC=?

+IFC: (0), (0,1)

AT+IFC?

+IFC: 0,1

'6.1.10 Selects the country of installation

AT+GCI=?

ERROR

'6.2.13 Data rate

AT+ILRR=?

ERROR

'6.2.10 Fixed TE data rate

AT+IPR=?

+IPR:

(9600,19200,38400,57600,115200),(0  
,9600,19200,38400,57600,115200)

AT+IPR?

ERROR

,

'According to PCCA STD-101:

'Select wireless network

AT+WS46=?

ERROR

'6.2.11 Character framing

AT+ICF=?

ERROR

AT+ICF?

,

'According to 3GPP TS 27.007 version 3.7.0:

'5.1 Request manufacturer identification

AT+GMI

SONY

AT+CSCS?

ERROR

AT+CGMI

SONY

'5.6 Request international mobile subscriber identity

'not used here, for privacy reasons

AT+CIMI=?

ERROR

'5.2 Request model identification

AT+GMM

CMD-Z5

AT+CMUX?

ERROR

AT+CGMM

CMD-Z5

'5.7 Multiplexing mode

AT+CMUX=?

ERROR

'5.3 Request revision identification

AT+GMR

435\_CPP\_6.6.0 0204101 16:18:00

AT+CMUX?

ERROR

AT+CGMR

435\_CPP\_6.6.0 0204101 16:18:00

'6.1 Select type of address

AT+CSTA=?

ERROR

'5.4 Request product serial number identification

'not used here, for privacy reasons

AT+CGSN=?

ERROR

AT+CSTA?

ERROR

'5.5 Select TE character set

'BUG: ISO8859-1 is used with +C commands but  
chars on "GSM" extension table are represented as  
there.

'Example: " ^ " gets char(27) + char(20)

AT+CSCS=?

ERROR

AT+CMOD?

ERROR

'6.5 Hangup call

AT+CHUP=?

ERROR

'6.7 Select bearer service type

```

AT+CBST=?
+CBST: (7,14,71,75),(0),(1)

AT+CBST?
+CBST: 7,0,1

'6.8 Radio link protocol
AT+CRLP=?
+CRLP: (0-61),(0-61),(380-
1000),(0-16),(0),()

AT+CRLP?
+CRLP: 61,61,480,6,0

'6.9 Service reporting control
AT+CR=?
ERROR

AT+CR?
ERROR

'6.10 Extended error report
AT+CEER=?
ERROR

'6.11 Cellular result codes
AT+CRC=?
+CRC: (0,1)

AT+CRC?
+CRC: 0

'6.12 HSCSD device parameters
AT+CHSD=?
ERROR

AT+CHSD
ERROR

'6.13 HSCSD transparent call configuration
AT+CHST=?
ERROR

AT+CHST?
ERROR

'6.14 HSCSD non-transparent call configuration
AT+CHSN=?
ERROR

AT+CHSN?
ERROR

'6.15 HSCSD current call parameters
AT+CHSC=?
ERROR

AT+CHSC?
ERROR

'6.16 HSCSD parameters report
AT+CHSR=?
ERROR

AT+CHSR?
ERROR

'6.17 HSCSD automatic user initiated upgrading
AT+CHSU=?

ERROR
AT+CHSU?
ERROR

'6.18 HSCSD non-transparent asymmetry
configuration
AT+CHSA=?
ERROR

AT+CHSA?
ERROR

'6.19 Single numbering scheme
AT+CSNS=?
ERROR

AT+CSNS?
ERROR

'6.20 Voice Hangup Control
AT+CVHU=?
ERROR

AT+CVHU?
ERROR

'6.21 V.120 rate adaption protocol
AT+CV120=?
ERROR

AT+CV120?
ERROR

'6.22 Settings date format
AT+CSDF=?
ERROR

AT+CSDF?
ERROR

'6.23 Silence Command
AT+CSIL=?
ERROR

AT+CSIL?
ERROR

'6.24 Settings time format
AT+CSTF=?
ERROR

AT+CSTF?
ERROR

'7.1 Subscriber number
'not used here, for privacy reasons
AT+CNUM=?
OK

'7.2 Network registration
'not used here, for privacy reasons
AT+CREG=?
+CREG: (0-2)

'7.3 Operator selection
'not used here, for privacy reasons
AT+COPS=?
ERROR

```

'7.4 Facility lock  
 AT+CLCK=?  
 +CLCK :  
 ( "AO" , "OI" , "OX" , "AI" , "IR" , "AB" , "AG"  
 " , "AC" )

'7.5 Change password  
 AT+CPWD=?  
 ERROR

'7.6 Calling line identification presentation  
 AT+CLIP=?  
 +CLIP: ( 0-1 )

'7.7 Calling line identification restriction  
 AT+CLIR=?  
 ERROR

'7.8 Connected line identification presentation  
 AT+COLP=?  
 ERROR

'7.9 Called line identification presentation  
 AT+CDIP=?  
 ERROR

'7.10 Closed user group  
 AT+CCUG=?  
 ERROR

'7.11 Call forwarding number and conditions  
 AT+CCFC=?  
 ERROR

'7.12 Call waiting  
 AT+CCWA=?  
 ERROR

AT+CCWA?  
 ERROR

'7.13 Call related supplementary services  
 AT+CHLD=?  
 +CHLD: ( 0 , 1 , 1x , 2 , 2x , 3 )

'7.14 Call deflection  
 AT+CTFR=?  
 ERROR

'7.15 Unstructured supplementary service data  
 AT+CUSD=?  
 ERROR

AT+CUSD?  
 ERROR

'7.16 Advice of Charge  
 AT+CAOC=?  
 ERROR

AT+CAOC?  
 ERROR

'7.17 Supplementary service notifications  
 AT+CSSN=?  
 ERROR

AT+CSSN?

ERROR

'7.18 List current calls  
 'not used here, for privacy reasons  
 AT+CLCC=?  
 ERROR

'7.19 Preferred operator list  
 'not used here, for privacy reasons  
 AT+CPOL=?  
 ERROR

'7.20 Read operator names  
 'not used here, for privacy reasons  
 AT+COPN=?  
 ERROR

'7.21 eMLPP Priority Registration and Interrogation  
 'not used here, for privacy reasons  
 AT+CAEMLPP=?  
 ERROR

'8.1 Phone activity status  
 AT+CPAS=?  
 +CPAS: ( 0 , 2-5 )

'8.2 Set phone functionality  
 AT+CFUN=?  
 ERROR

AT+CFUN?  
 ERROR

'8.3 Enter PIN  
 AT+CPIN?  
 +CPIN: READY

'8.4 Battery charge  
 AT+CBC=?  
 +CBC: ( 0 , 1 , 2 ) , ( 0-100 )

'8.5 Signal quality  
 AT+CSQ=?  
 +CSQ: ( 2-31 , 99 ) , ( 0-7 )

'8.6 Mobile Equipment control mode  
 AT+CMEC=?  
 ERROR

AT+CMEC?  
 ERROR

'8.7 Keypad control  
 AT+CKPD=?  
 ERROR

'8.8 Display control  
 AT+CDIS=?  
 ERROR

'8.9 Indicator control  
 AT+CIND=?  
 ERROR

'8.10 Mobile Equipment event reporting  
 AT+CMER=?  
 ERROR

|   |   |
|---|---|
| AT+CMER?  | AT+CLVL=?                               |
| ERROR   | ERROR                                   |
| '8.11 Select phonebook memory storage           | '8.24 Mute control                      |
| AT+CPBS=?                                       | AT+CMUT=?                               |
| +CPBS:  | ERROR                                   |
| ( "SM" , "ME" , "FD" , "ON" , "LD" , "MC" , "RC |   |
| " )   |   |
| AT+CPBS?  | '8.25 Accumulated call meter            |
| +CPBS: "SM" , 20 , 100                          | AT+CACM=?                               |
|   | ERROR                                   |
| '8.12 Read phonebook entries                    | '8.26 Accumulated call meter maximum    |
| AT+CPBR=?                                       | AT+CAMM=?                               |
| +CPBR: (1-100) , 40 , 17                        | ERROR                                   |
| AT+CPBR?  | '8.27 Price per unit and currency table |
| ERROR   | AT+CPUC=?                               |
|   | ERROR                                   |
| '8.13 Find phonebook entries                    | '8.28 Call Meter maximum event          |
| AT+CPBF=?                                       | AT+CCWE=?                               |
| +CPBF: 40 , 17                                  | ERROR                                   |
| '8.14 Write phonebook entry                     | '8.29 Power class                       |
| AT+CPBW=?                                       | AT+CPWC=?                               |
| +CPBW: (1-100) , 40 , (129 , 145) , 17          | ERROR                                   |
| '8.15 Clock                                     | AT+CPWC?                                |
| AT+CCLK=?                                       | ERROR                                   |
| ERROR   |   |
| AT+CCLK?  | '8.30 Set Language                      |
| ERROR   | AT+CLAN=?                               |
|   | ERROR                                   |
| '8.16 Alarm                                     | '8.31 Language Event                    |
| AT+CALA=?                                       | AT+CLAE=?                               |
| ERROR   | ERROR                                   |
| AT+CALA?  | AT+CLAE?                                |
| ERROR   | ERROR                                   |
| '8.17 Generic SIM access                        | '8.32 Set Greeting Text                 |
| AT+CSIM=?                                       | AT+CSGT=?                               |
| ERROR   | ERROR                                   |
| '8.18 Restricted SIM access                     | '8.33 Set Voice Mail Number             |
| AT+CRSM=?                                       | AT+CSVM=?                               |
| ERROR   | ERROR                                   |
| '8.19 Secure control command                    | '8.34 Ring Melody Playback              |
| AT+CSCC=?                                       | AT+CRMP=?                               |
| ERROR   | OK                                      |
| '8.20 Alert sound mode                          | '8.35 Master Reset                      |
| AT+CALM=?                                       | AT+CMAR=?                               |
| ERROR   | ERROR                                   |
| AT+CALM?  | '8.36 List all available AT commands    |
| ERROR   | AT+CLAC                                 |
|   | +C                                      |
|   | +CLAC                                   |
|   | D                                       |
|   | O                                       |
|   | A                                       |
|   | D                                       |
|   | E                                       |
|   | H                                       |
|   | I                                       |
|   | Q                                       |
| '8.21 Ringer sound level                        |   |
| AT+CRSL=?                                       |   |
| ERROR   |   |
| '8.22 Vibrator mode                             |   |
| AT+CVIB=?                                       |   |
| ERROR   |   |
| '8.23 Loudspeaker volume level                  |   |

```

S                           ERROR
V
Z
&F
&W
+CGMI
+CGMM
+CGMR
+CGSN
+CHLD
+CRC
+CLIP
+CBC
+CPBS
+CPBR
+CPBF
+CPBW
+CMEE
+CSQ
+CPIN
+CPAS
+CNUM
+CLCK
+CRMP
+CRLP
+CBST
+CREG
+VTS
+VTD
+CSCA
+CMGL
+CMGR
+CMGS
+CMGF
+CSMS
+CPMS
+CMGW
+CMGD
+CNMI
+GCAP
+GMI
+GMM
+GMR
+IPR
+IFC

'8.37 Delete alarm          '9.1 Report Mobile Equipment error
AT+CALD=?                  AT+CMEE=?
ERROR                         +CMEE: (0-1)

'8.38 Postpone or dismiss an alarm   '10.1.1 Define PDP Context
AT+CAPD=?                  AT+CGDCONT=?
ERROR                         ERROR

'8.39 Automatic Time Zone Update    '10.1.2 Define Secondary PDP Context
AT+CTZU=?                  AT+CGDSCONT=?
ERROR                         ERROR

AT+CTZU?                     '10.1.3 Traffic Flow Template
ERROR                         AT+CGTFT=?
ERROR

'8.40 Time Zone Reporting        '10.1.4 Quality of Service Profile (Requested)
AT+CTZR=?                  AT+CGQREQ=?
ERROR                         ERROR

AT+CTZR?                     '10.1.5 Quality of Service Profile (Minimum
ERROR                         acceptable)
AT+CGQMIN=?                 ERROR

'8.41 Enter protocol mode       '10.1.6 3G Quality of Service Profile (Requested)
AT+C PROT=?                 AT+CGEQREQ=?
ERROR                         ERROR

'8.37 Delete alarm          '10.1.7 3G Quality of Service Profile (Minimum
AT+CALD=?                  acceptable)
AT+CGEQMIN=?                 ERROR

'8.38 Postpone or dismiss an alarm   '10.1.8 3G Quality of Service Profile (Negotiated)
AT+CAPD=?                  AT+CGEQNEG=?
ERROR                         ERROR

'8.39 Automatic Time Zone Update    '10.1.9 PS attach or detach
AT+CTZU=?                  AT+CGATT=?
ERROR                         ERROR

AT+CTZU?                     '10.1.10 PDP context activate or deactivate
ERROR                         AT+CGACT=?
ERROR

'8.40 Time Zone Reporting        '10.1.11 PDP Context Modify
AT+CTZR=?                  AT+CGCMOD=?
ERROR                         ERROR

AT+CTZR?                     '10.1.12 Enter data state
ERROR                         AT+CGDATA=?
ERROR

'8.41 Enter protocol mode       '10.1.13 Configure local Octet Stream PAD
AT+C PROT=?                 parameters
AT+CGCLOSP=?                 ERROR

'8.37 Delete alarm          '10.1.14 Show PDP address
AT+CALD=?                  AT+CGPADDR=?
ERROR                         ERROR

AT+C PROT=?                 '10.1.15 Automatic response to a network request
AT+CGAUTO=?                 for PDP context activation

```

ERROR

'10.1.16 Manual response to a network request for PDP context activation  
AT+CGANS=?  
ERROR

'10.1.17 GPRS mobile station class  
AT+CGCLASS=?  
ERROR

AT+CGCLASS?  
ERROR

'10.1.12 Configure local triple-X PAD parameters  
AT+CGCLPAD=?  
ERROR

'10.1.18 Packet Domain event reporting  
AT+CGEREP=?  
ERROR

'10.1.19 GPRS network registration status  
AT+CGREG=?  
ERROR

'10.1.20 Select service for MO SMS messages  
AT+CGSMS=?  
ERROR

'11.1.1 Accept an incoming Voice Group or Voice Broadcast Call  
AT+CAJOIN=?  
ERROR

'According to 3GPP TS 27.005 version 3.1.0:  
'3.2.1 Select Message Service  
AT+CSMS=?  
+CSMS: ( 0 )

AT+CSMS?  
+CSMS: 0,1,1,0

'3.2.2 Preferred Message Storage  
AT+CPMS=?  
+CPMS: ( "SM", "ME" ), ( "SM" ), ( " " )

AT+CPMS?  
+CPMS:  
"ME", 0,11, "SM", 0,12, "SM", 0,0

'3.2.3 Message Format  
AT+CMGF=?  
+CMGF: ( 0 )

AT+CMGF?  
+CMGF: 0

'3.2.4 Enter SMS Block Mode Protocol  
AT+CESP=?  
ERROR

'3.3.1 Service Centre Address  
AT+CSCA=?  
OK

'3.3.2 Set Text Mode Parameters

'11.1.2 Reject an incoming Voice Group or Voice Broadcast Call  
AT+CAREJ=?  
ERROR

'11.1.3 Leave an ongoing Voice Group or Voice Broadcast Call  
AT+CAHLD=?  
ERROR

'11.1.4 Talker Access for Voice Group Call  
AT+CAPTT=?  
ERROR

'11.1.5 Voice Group Call Uplink Status Presentation  
AT+CAULEV=?  
ERROR

'11.1.6 List current Voice Group and Voice Broadcast Calls  
AT+CALCC=?  
ERROR

'11.1.7 Voice Group or Voice Broadcast Call State Attribute Presentation  
AT+CACSP=?  
ERROR

'11.1.8 NCH Support Indication  
AT+CANCHEV=?  
ERROR

'3.3.3 Show Text Mode Parameters  
AT+CSDH=?  
ERROR

AT+CSDH?

'3.3.4 Select Cell Broadcast Message Types  
AT+CSCB=?  
ERROR

AT+CSCB?

'3.3.5 Save Settings  
AT+CSAS=?  
ERROR

'3.3.6 Restore Settings  
AT+CRES=?  
ERROR

'3.4.1 New Message Indications to TE  
AT+CNMI=?

+CNMI: (0-3),(0-3),(0),(0),(0)

AT+CNMI?

+CNMI: 0,0,0,0,0

'3.5.4 Delete Message

AT+CMGD=?

OK

'3.5.6 More Messages to Send

AT+CMMS=?

ERROR

'SMS PDU mode only

AT+CMGF=0

OK

'4.1 List Messages

AT+CMGL=?

+CMGL: (0-4)

'4.2 Read Message

AT+CMGR=?

OK

'4.3 Send Message

'BUG: 142/3 char limitation of User Text

AT+CMGS=?

OK

'4.4 Write Message to Memory

'BUG: 142/3 char limitation of User Text

AT+CMGW=?

OK

'4.5 Send Command

AT+CMGC=?

ERROR

'4.6 New Message Acknowledgement to ME/TA

AT+CNMA=?

ERROR

'4.7 Send Message from Storage

AT+CMSS=?

ERROR