

# CWT5016 COMMANDS

## V3.2

## CONTENTS

Setup control server phone .....	6
CS Setup Control server phone .....	6
Basic parameters .....	7
UB Setup RTU com port0 BPS .....	7
UP Setup RTU com port0 Parity .....	7
SIGNALA Enable or Disable low signal Alarm .....	7
RSILOW Setup the thread hold value of Signal Low Alarm .....	7
DAS Enable or Disable Daily Report SMS at 10.pm everyday .....	8
PRTCS Send proof time request SMS to first valid CS number when power up .....	8
PRTSP Send proof time request SMS to SP when power up .....	8
SP Setup the SP phone number .....	8
RPLSUC Reply SMS for successfully executed SMS command .....	8
RPLERR Reply SMS for incorrect executed SMS command .....	9
PW Setup RTU login Password .....	9
ID Setup RTU Device ID .....	9
PIN Setup RTU PIN code .....	9
PUK Setup RTU PUK code .....	9
SMSC Setup the SMS message center service number .....	10
DESC Setup the RTU description information .....	10
Alarm parameters .....	11
ARING Enable or Disable Alarm RING call function .....	11
ASC Enable or Disable Auto Answer Voice call from CS phones .....	11
AWB Enable or Disable description in Alarm SMS .....	11
UARTEVENT Enable or Disable Export events from UART .....	11
IOAT Setup alert sms resend times .....	12
DRPTID Enable or Disable ID information in daily report SMS .....	12
DRPDEF Enable or Disable ARM/DISARM information in daily report SMS .....	12
DRPBAT Enable or Disable Power Supply information in daily report SMS .....	12
DRPMEM Enable or Disable description information in daily report SMS .....	13
DRPRSI Enable or Disable GSM Signal information in daily report SMS .....	13
DRPDIN Enable or Disable Alarm Wired Inputs information in daily report SMS .....	13
DRPTMP Enable or Disable build in temperature information in daily report SMS .....	13
Input and output parameters .....	14
IOTP Setup all inputs and outputs type .....	14
IOIP Disable inputs alarm .....	14
IOIC Enable inputs alarm .....	14
DINURG Enable or Disable inputs "24 hours" option .....	15
DINSND Enable or Disable inputs "sound alarm" option .....	15
IOAS Setup alarm sms limit interval .....	15
IOLS Setup sms resend interval when input is in alarm state .....	15
DINDLY Setup timer for ensuring inputs alarm .....	16
S Setup digital inputs alarm sms content .....	16
S Setup digital inputs recover sms content .....	16
I Setup inputs name .....	16
O Setup outputs name .....	17
IOIS Read inputs status .....	17
IOOS Read outputs status .....	17
IOOR Setup remember outputs status .....	17
IOHT Setup Persist timespan of siren .....	17
Control outputs commands .....	18
IOOH Control outputs on .....	18
IOOL Control outputs off .....	18



IOOP Control outputs pulse.....	18	TMPH Setup high point of interior temperature normal range .....	32
IOPO Setup pulse interval.....	18	TMPL Setup low point of interior temperature normal range .....	32
IOOP Control outputs pulse with time.....	18	TMPB Setup temperature adjustments value.....	32
IOOF Control all outputs by a command .....	19	TMPAS Setup the timespan of twice alarm sms .....	32
<b>AIN parameters.....</b>	<b>20</b>	TMPPLS Setup timespan of resend alarm sms .....	33
AIN*H Setup high point of the AIN normal range1 .....	20	TMPNDLY Setup timespan of ensure alarm status .....	33
AIN*L Setup low point of the AIN normal range1 .....	20	TMPOS Setup lags of temperature alarm range.....	33
AIN*SC Setup the scale factor of AIN .....	20	TMPON Enable temperature sensor alarm.....	33
AIN*ZE Setup the Offset value of AIN .....	20	TMPOFF Disable temperature sensor alarm .....	33
AIN*OS Setup AIN normal range1's lag value .....	21	TMPURG Setup temperature sensor alarm is urgency 24 hours.....	34
AIN*ST Setup AIN upload step value.....	21	TMPSND Setup temperature sensor sound alarm.....	34
AIN*R Query AIN Normal range 1 .....	21	TMPIH Setup interlock output pin of high point .....	34
AIN*C Query Value of AIN .....	21	TMPII Setup interlock output pin of low point.....	34
ADS Query all AIN .....	21	TMPR Query temperature normal range.....	34
AINON Enable AIN .....	22	TMPC Query current temperature value.....	35
AINOFF Disable AIN.....	22	<b>Interior battery parameters.....</b>	<b>36</b>
AINURG Setup AIN Urgency .....	22	BATEN Enable or disable power lost alarm.....	36
AINSND Setup AIN Sound Alarm.....	22	PODWLY Setup time of ensure power alarm.....	36
AINTP Setup AIN type.....	23	POW Query power status.....	36
AINDRP Setup AIN value send with daily report sms .....	23	<b>Exterior temperature sensor parameters.....</b>	<b>37</b>
AINAS Setup the minimum time of twice AD alarm sms .....	23	ETEMPEN Enable or Disable exterior temperature sensor.....	37
AINLS Setup interval of resend AD alarm state sms .....	23	ETEMPH Setup high point of exterior temperature normal range .....	37
AINDLY Setup timespan of ensure AD alarm.....	24	ETEMPPL Setup low point of exterior temperature normal range .....	37
A Setup the AIN channel's name.....	24	ETEMPB Setup temperature adjustments value .....	37
<b>GPRS parameters.....</b>	<b>25</b>	ETEMPAS Setup the timespan of twice alarm sms.....	38
M2MEN Eable or disable GPRS transfer.....	25	ETEMPPLS Setup timespan of resend alarm sms.....	38
M2MAPN Setup GPRS APN .....	25	ETEMPDLY Setup timespan of ensure alarm sms.....	38
M2MUID Setup GPRS user name .....	25	ETEMPOS Setup temperature alarm range lags .....	38
M2MPWD Setup GPRS user password.....	25	ETEMPURG Setup temperature sensor alarm is urgency 24 hours .....	39
M2MIDT Setup GPRS idle timeout .....	26	ETEMPSND Setup temperature sensor sound alarm .....	39
M2MCTO Setup TCP connection timeouts.....	26	ETEMPR Query all temperature channels normal range .....	39
MODUID Setup modbus TCP unit id.....	26	ETEMPC Query all channels current temperature value .....	39
GDTUEN Eable or disable com data to GPRS server(DTU).....	26	<b>Interlock parameters .....</b>	<b>40</b>
GMSGEN Enable or disable CWT_IO protocol.....	27	IOOC Setup outputs action.....	40
M2MDTSIP Setup GPRS server IP or domain name .....	27	IOOA Setup link with .....	40
M2MDTSPT Setup GPRS server port.....	27	<b>Setup timers.....</b>	<b>41</b>
M2MDTSPO Setup transfer protocol.....	27	mtimer Setup system timers .....	41
M2MDTSTP Setup server type.....	28	mspan Setup minutes timers .....	41
M2MDTSTO Setup data transfer timeouts.....	28	sspan Setup second timers .....	41
<b>GPRS commands.....</b>	<b>29</b>	mdate Setup week timers .....	41
M2MDRP Request upload state to server .....	29	<b>Setup User command .....</b>	<b>43</b>
M2MDIS Request upload all DI state to server .....	29	U Setup the User defined commands.....	43
M2MDOS Request upload all DO state to server .....	29	Y Setup the User defined commands mapped RTU commands.....	43
M2MADS Request upload all AI data to server .....	29	<b>System operation commands .....</b>	<b>44</b>
M2MREGS Request upload all local modbus registers to server .....	29	PW Setup system password.....	44
M2MITP Request upload build in temperature to server .....	29	DAYRP Query the RTU status (Daily report SMS) .....	44
M2METP Request upload external DS18B20 temperature to server .....	29	ARM/BF Arm the RTU system .....	44
M2MRTM Re-dial GPRS to connect server .....	30	DISARM/CF Disarm the RTU system.....	44
M2MLIP Query local GPRS interface and IP address.....	30	RST Reset the RTU power .....	44
<b>Buzzer parameters.....</b>	<b>31</b>	LOADF Load factory settings .....	44
BUZEN Enable or disable buzzer sound alarm .....	31		
BUZT Setup buzzer persist time when alarm .....	31		
BUZCLR Reset the interior buzzer sound.....	31		
<b>Interior temperature parameters.....</b>	<b>32</b>		

## The instructions of SMS COMMANDS

You can use this sms commands to remote control and configure RTU

SMS commands is valid when RTU is in working mode

You can execute this sms commands through RS232. But the point is that when the input command is made through RS232, the “%” has to be input ahead, while if it is sent via sms, no “%” or “< CR >” is needed.

Type	Format	Note
Config commands	%command<value><enter>	Return OK or ERROR
Inquire commands	%command<?><enter>	Return the result or ERROR

### Setup control server phone

CS Setup Control server phone		
<i>Write Command</i> <b>CS&lt;n&gt;=[phone]</b>	<i>Parameters:</i> <n>: CS phone index, form 0~9 [phone]: a valid phone number or null string to delete	<i>Example:</i> <b>CS0=13800000000</b>
<i>Read Command</i> <b>CS?</b>	Query all CS phone number	
<i>Delete Command</i> <b>CS&lt;n&gt;</b>		

## Basic parameters

UB Setup RTU com port0 BPS		
Write Command	Parameters <BPS>: 300-115200 Default BPS is 9600BPS	Example: <b>UB=9600</b>
<b>UB=&lt;BPS&gt;</b>		
Read Command		
<b>UB=?</b>		

UP Setup RTU com port0 Parity		
Write Command	Parameters <Parity>: 0: None (default) 1: Odd Parity 2: Even Parity 3: 0 Parity 4: 1 Parity	Example: <b>UP=0</b>
<b>UP=&lt;Parity&gt;</b>		
Read Command		
<b>UP=?</b>		

SIGNALA Enable or Disable low signal Alarm		
Write Command	Parameters <En> 0: Disable (default) 1: Enable	Example: <b>SIGNALA=1</b>
<b>SIGNALA=&lt;En&gt;</b>		
Read Command		
<b>SIGNALA=?</b>		

RSILOW Setup the thread hold value of Signal Low Alarm		
Write Command	Parameters <Signal> Normal Signal range is 10-30 0 or 99 means no signal at all	Example: <b>RSILOW=11</b>
<b>RSILOW=&lt;Signal&gt;</b>		
Read Command	When signal low, RTU will make a sound alarm and try to send SMS	
<b>RSILOW=?</b>		

DAS Enable or Disable Daily Report SMS at 10.pm everyday		
Write Command	Parameters <En> 0: Disable 1: Enable (default)	Example: <b>DAS=1</b>
<b>DAS=&lt;En&gt;</b>		
Read Command		
<b>DAS=?</b>		

PRTCS Send proof time request SMS to first valid CS number when power up		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>PRTCS=1</b>
<b>PRTCS=&lt;En&gt;</b>		
Read Command		
<b>PRTCS=?</b>		

PRTSP Send proof time request SMS to SP when power up		
Write Command	Parameters <En>: 0: Disable (default) 1: Enable	Example: <b>PRTSP=1</b>
<b>PRTSP=&lt;En&gt;</b>		
Read Command		
<b>PRTSP=?</b>		

SP Setup the SP phone number		
Write Command	SP phone number is a phone that can automatic reply a SMS to any incoming SMS, RTU use it to update interior Clocker by the timestamp in SMS, the SMS contents is not important	
<b>SP=&lt;phone&gt;</b>		
Read Command	SP phone number can be RTU's simcard number. So it will send proof time sms to itself when power up and RTU will receive this sms. So RTU can take out the time stamp from the sms PDU. Note: if the RTU's simcard is changed, you must change the SP also.	
<b>SP=?</b>		

RPLSUC Reply SMS for successfully executed SMS command		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>RPLSUC=1</b>
<b>RPLSUC=&lt;En&gt;</b>		
Read Command		
<b>RPLSUC=?</b>		

RPLERR Reply SMS for incorrect executed SMS command		
Write Command	Parameters <En> 0: Disable 1: Enable (default)	Example: <b>RPLERR=1</b>
Read Command		
<b>RPLERR=&lt;En&gt;</b>		
<b>RPLERR=?</b>		

PW Setup RTU login Password		
Write Command	Password is 6 characters string	Example: <b>PW=888888</b>
Read Command	Default password is 000000	
<b>PW=&lt;psd&gt;</b>		
<b>PW=?</b>		

ID Setup RTU Device ID		
Write Command	Device ID is a 8 characters string Default ID is null	Example: <b>ID=00000001</b>
Read Command	ID is used in GPRS CWT_IO protocol	
<b>ID=&lt;id&gt;</b>		
<b>ID=?</b>		

PIN Setup RTU PIN code		
Write Command	PIN code is 4 number	Example: <b>PIN=1234</b>
Read Command		
<b>PIN=&lt;code&gt;</b>		
<b>PIN=?</b>		

PUK Setup RTU PUK code		
Write Command	PUK code including 8 numbers	Example: <b>PUK=12345678</b>
Read Command		
<b>PUK=&lt;code&gt;</b>		
<b>PUK=?</b>		

SMSC Setup the SMS message center service number		
Write Command		
Read Command	Default is NULL (can works well in most of area and country)	
<b>SMSC=&lt;code&gt;</b>		
<b>SMSC=?</b>		

DESC Setup the RTU description information		
Write Command		Example: <b>DESC=room1</b>
Read Command	Description is basic information about the device, etc, the address, the administrator and so on.	
<b>DESC=&lt;string&gt;</b>		
<b>DESC=?</b>		



## Alarm parameters

ARING Enable or Disable Alarm RING call function		
Write Command	Parameters <En>: 0: Disable (default) 1: Enable	Example: <b>ARING=1</b>
<b>ARING=&lt;En&gt;</b>		
Read Command	If enable RING call, any alert will cause a voice call to CS phone numbers.	
<b>ARING=?</b>		

ASC Enable or Disable Auto Answer Voice call from CS phones		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>ASC=1</b>
<b>ASC=&lt;En&gt;</b>		
Read Command		
<b>ASC=?</b>		

AWB Enable or Disable description in Alarm SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>AWB=1</b>
<b>AWB=&lt;En&gt;</b>		
Read Command	Add the description and timestamp with alert sms	
<b>AWB=?</b>		

UARTEVENT Enable or Disable Export events from UART		
Write Command	Parameters <En>: 0: Disable (default) 1: Enable	Example: <b>UARTEVENT=1</b>
<b>UARTEVENT=&lt;En&gt;</b>		
Read Command		
<b>UARTEVENT=?</b>		

IOAT Setup alert sms resend times		
Write Command	Parameters <n>: sms resend times default is 1	Example: <b>IOAT=3</b>
<b>IOAT=&lt;n&gt;</b>		
Read Command		
<b>IOAT=?</b>		

DRPTID Enable or Disable ID information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPTID=1</b>
<b>DRPTID=&lt;En&gt;</b>		
Read Command		
<b>DRPTID=?</b>		

DRPDEF Enable or Disable ARM/DISARM information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPDEF=1</b>
<b>DRPDEF=&lt;En&gt;</b>		
Read Command		
<b>DRPDEF=?</b>		

DRPBAT Enable or Disable Power Supply information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPBAT=1</b>
<b>DRPBAT=&lt;En&gt;</b>		
Read Command		
<b>DRPBAT=?</b>		

DRPMEM Enable or Disable description information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPMEM=1</b>
<b>DRPMEM=&lt;En&gt;</b>		
Read Command		
<b>DRPMEM=?</b>		

DRPRSI Enable or Disable GSM Signal information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPRSI=1</b>
<b>DRPRSI=&lt;En&gt;</b>		
Read Command		
<b>DRPRSI=?</b>		

DRPDIN Enable or Disable Alarm Wired Inputs information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPDIN=1</b>
<b>DRPDIN=&lt;En&gt;</b>		
Read Command		
<b>DRPDIN=?</b>		

DRPTMP Enable or Disable build in temperature information in daily report SMS		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>DRPTMP=1</b>
<b>DRPTMP=&lt;En&gt;</b>		
Read Command		
<b>DRPTMP=?</b>		

## Input and output parameters

IOTP Setup all inputs and outputs type		
Setup all I/O channels type Write Command	Parameters <b>&lt;I<sub>0</sub>I<sub>1</sub>I<sub>2</sub>I<sub>3</sub>&gt;</b> <b>Inputs type:</b> 0: DISABLE 1: TO OPEN ALARM (EDGE) 2: TO OPEN ALARM(LEVEL) 3: TO CLOSE ALARM (EDGE)(default) 4: TO CLOSE ALARM(LEVEL) <b>&lt;O<sub>0</sub>O<sub>1</sub>O<sub>2</sub>O<sub>3</sub>&gt;</b>	Example: <b>IOTP=33331000</b>
<b>IOTP=&lt;I<sub>0</sub>I<sub>1</sub>I<sub>2</sub>I<sub>3</sub>&gt;&lt;O<sub>0</sub>O<sub>1</sub>O<sub>2</sub>O<sub>3</sub>&gt;</b>		
Setup single input type Write Command	<b>IOTPI=&lt;n&gt;,&lt;I<sub>n</sub>&gt;</b>	Example: <b>IOTPI=0,2</b> Setup input0 type is 2
Setup single output type Write Command	<b>IOTPO=&lt;n&gt;,&lt;O<sub>n</sub>&gt;</b>	Example: <b>IOTPO=0,1</b> Setup output0 type is 1
Read Command		
<b>IOTP=?</b>		

IOIP Disable inputs alarm		
Write Command	Parameters <n/nn/.../nnnn>: 1 digit to 4 digits n: 0~3 (input index)	Example: Disable input0 alarm <b>IOIP=0</b>
<b>IOIP=&lt;n/nn/.../nnnn&gt;</b>		
Read Command		Disable input2/3 alarm <b>IOIP=23</b>
<b>IOIP=?</b>		

IOIC Enable inputs alarm		
Write Command	Parameters <n/nn/.../nnnn>: 1 digit to 4 digits n: 0~3 (input index)	Example: <b>IOIC=1</b> <b>IOIC=0123</b>
<b>IOIC=&lt;n/nn/.../nnnn&gt;</b>		
Read Command		
<b>IOIC=?</b>		

DINURG Enable or Disable inputs "24 hours" option		
Write Command <b>DINURG&lt;n&gt;,&lt;En&gt;</b>	Parameters <n>: 0~3 (input index) <En>: 0: Disable (default) 1: Enable	Example: <b>DINURG0,1</b>  Enable input0 "24 hours" option
Read Command <b>DINURG=?</b>		

DINSND Enable or Disable inputs "sound alarm" option		
Write Command <b>DINSND&lt;n&gt;,&lt;En&gt;</b>	Parameters <n>: 0~3 (input index) <En>: 0: Disable 1: Enable (default)	Example: <b>DINSND=1,0</b>  Disable input1 "sound alarm" option
Read Command <b>DINSND=?</b>		

IOAS Setup alarm sms limit interval		
Write Command <b>IOAS&lt;n&gt;,&lt;time&gt;</b>	Parameters <n>: 0~3 (Inputs index) <time>: 0~255 (min)	Example: <b>IOAS0,2</b>
Read Command <b>IOAS&lt;n&gt;?</b>	Default is 0	

IOLS Setup sms resend interval when input is in alarm state		
Write Command <b>IOLS&lt;n&gt;,&lt;time&gt;</b>	Parameters <n>: 0~3 (Inputs index) <time>: 0~255 (min)	Example: <b>IOLS0,2</b>
Read Command <b>IOLS&lt;n&gt;?</b>	Default is 0	

DINDLY Setup timer for ensuring inputs alarm		
Write Command <b>DINDLY&lt;n&gt;,&lt;time&gt;</b>	Parameters <n>: 0~3 (Inputs index) <time>: 0~65535 (sec)	Example: <b>DINDLY0,5</b>
Read Command <b>DINDLY&lt;n&gt;?</b>	Default is 0	

S Setup digital inputs alarm sms content		
Write Command <b>S&lt;nn&gt;=&lt;string&gt;</b>	Parameters <nn>: 00~03 (inputs alarm sms index) <string>: Alarm sms	Example: <b>S00=sensor alarm</b>
Read Command <b>S&lt;nn&gt;=?</b>		

S Setup digital inputs recover sms content		
Write Command <b>S&lt;nn&gt;=&lt;string&gt;</b>	Parameters <nn>: 04~07 (inputs recover sms index) <string>: Recover sms	Example: <b>S03=alarm recover</b>
Read Command <b>S&lt;nn&gt;=?</b>		

I Setup inputs name		
Write Command <b>I&lt;nn&gt;=&lt;string&gt;</b>	Parameters <nn>: 00~03 (inputs name index) <string>: Name	Example: <b>I02=sensor</b>
Read Command <b>I&lt;nn&gt;=?</b>		



O Setup outputs name		
<i>Write Command</i>	<i>Parameters</i> <nn>: 00~03 (outputs name index) <string>: Name	<i>Example:</i> <b>O02=pump</b>
<b>O&lt;nn&gt;=&lt;string&gt;</b>		
<i>Read Command</i>		
<b>O&lt;nn&gt;=?</b>		

IOIS Read inputs status	
<i>Read Command</i>	
<b>IOIS</b>	

IOOS Read outputs status	
<i>Read Command</i>	
<b>IOOS</b>	

IOOR Setup remember outputs status		
<i>Write Command</i>	<i>Parameters</i> <En>: 0: Disable (default) 1: Enable	<i>Example:</i> <b>IOOR=1</b>
<b>IOOR=&lt;En&gt;</b>		
<i>Read Command</i>		
<b>IOOR=?</b>		

IOHT Setup Persist timespan of siren		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~255 (min)	<i>Example:</i> <b>IOHT=10</b>
<b>IOHT=&lt;n&gt;</b>		
<i>Read Command</i>	Default is 15 minutes	
<b>IOHT=?</b>		

## Control outputs commands

IOOH Control outputs on		
<i>control Command</i>	<i>Parameters</i> <nnnn>: 1 digit to 4 digits n: 0~3 (outputs index)	<i>Example:</i> Control output0 on: <b>IOOH0</b>  Control output0/2/3 on: <b>IOOH023</b>
<b>IOOH&lt;nnnn&gt;</b>		

IOOL Control outputs off		
<i>control Command</i>	<i>Parameters</i> <nnnn>: 1 digit to 4 digits n: 0~3 (outputs index)	<i>Example:</i> <b>IOOL0</b> <b>IOOL0123</b>
<b>IOOL&lt;nnnn&gt;</b>		

IOOP Control outputs pulse		
<i>control Command</i>	<i>Parameters</i> <nnnn>: 1 digit to 4 digits n: 0~3 (outputs index) default pulse interval is 1 second, and the interval can be set by command IOPO	<i>Example:</i> <b>IOOP0</b> <b>IOOP0123</b>
<b>IOOP&lt;nnnn&gt;</b>		

IOPO Setup pulse interval		
<i>Write Command</i>	<i>Parameters</i> <sec>: 0~65535 (second)	<i>Example:</i> <b>IOPO5</b>
<b>IOPO&lt;sec&gt;</b>		
<i>Read Command</i>		
<b>IOPO?</b>		

IOOP Control outputs pulse with time		
<i>control Command</i>	<i>Parameters</i> <nnnn>: 1 digit to 4 digits n: 0~3 (output index) <sec>: 0~65535 (second)	<i>Example:</i> Generate a 10 seconds pulse on output0: <b>IOOP0,10</b>  Generate a 3 seconds pulse on output 0/2/3: <b>IOOP023,3</b>
<b>IOOP&lt;nnnn&gt;,&lt;sec&gt;</b>		

IOOF Control all outputs by a command		
<i>control Command</i>	<i>Parameters</i> <S <sub>0</sub> S <sub>1</sub> S <sub>2</sub> S <sub>3</sub> >: 4 digits <b>S<sub>n</sub>:</b> 0: output off 1: output on	<i>Example:</i> Control output1/2 off and others on <b>IOOF1001</b>
<b>IOOF&lt;S<sub>0</sub>S<sub>1</sub>S<sub>2</sub>S<sub>3</sub>&gt;</b>		

## AIN parameters

AIN*H Setup high point of the AIN normal range l		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (AIN index) <Val>: a float value	<i>Example:</i> <b>AIN0H=30.01</b>
<b>AIN&lt;n&gt;H=&lt;Val&gt;</b>		
<i>Read Command</i>		
<b>AIN&lt;n&gt;H=?</b>		

AIN*L Setup low point of the AIN normal range l		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (AIN index) <Val>: a float value	<i>Example:</i> <b>AIN0L=10.53</b>
<b>AIN&lt;n&gt;L=&lt;Val&gt;</b>		
<i>Read Command</i>		
<b>AIN&lt;n&gt;L=?</b>		

AIN*SC Setup the scale factor of AIN		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (AIN index) <Val>: a float value	<i>Example:</i> <b>AIN0SC=62.00</b>
<b>AIN&lt;n&gt;SC=&lt;Val&gt;</b>		
<i>Read Command</i>	<i>Reference</i> AIN value = AIN*[Scale Factor]-Offset	
<b>AIN&lt;n&gt;SC=?</b>		

AIN*ZE Setup the Offset value of AIN		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (AIN index) <Val>: a float value	<i>Example:</i> <b>AIN0ZE=12.00</b>
<b>AIN&lt;n&gt;ZE=&lt;Val&gt;</b>		
<i>Read Command</i>	<i>Reference</i> AIN value = AIN*[Scale Factor]-Offset	
<b>AIN&lt;n&gt;ZE=?</b>		

AIN*OS Setup AIN normal range1's lag value		
<i>Write Command</i> <b>AIN&lt;n&gt;OS=&lt;lag&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index) <lag>: a float value Default is 0	<i>Example:</i> <b>AIN0OS=2.00</b>
<i>Read Command</i> <b>AIN&lt;n&gt;OS=?</b>		
<i>Reference</i>	When AIN value goes out of normal rang1, RTU will alarm. But will not return to normal state before AIN return into range <b>AINH-lag</b> and <b>AINL+lag</b>	

AIN*ST Setup AIN upload step value		
<i>Write Command</i> <b>AIN&lt;n&gt;ST=&lt;val&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index) <lag>: a float value Default is 0	<i>Example:</i> <b>AIN0ST=5.00</b>
<i>Read Command</i> <b>AIN&lt;n&gt;ST=?</b>		

AIN*R Query AIN Normal range 1		
<i>Execution Command</i> <b>AIN&lt;n&gt;R</b>	<i>Parameters</i> <n>: 0~3 (AIN index)	

AIN*C Query Value of AIN		
<i>Execution Command</i> <b>AIN&lt;n&gt;C</b>	<i>Parameters</i> <n>: 0~3 (AIN index)	

ADS Query all AIN		
<i>Execution Command</i> <b>ADS</b>		

AINON Enable AIN		
<i>Write Command</i> <b>AINON=&lt;n&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index)	<i>Example:</i> Enable AIN0 <b>AINON=0</b>
<i>Read Command</i> <b>AINON=?</b>		

AINOFF Disable AIN		
<i>Write Command</i> <b>AINOFF=&lt;n&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index)	<i>Example:</i> Disable AIN1 <b>AINOFF=1</b>
<i>Read Command</i> <b>AINOFF=?</b>		

AINURG Setup AIN Urgency		
<i>Write Command</i> <b>AINURG=&lt;n&gt;,&lt;En&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index) <En>: 0: Disable (default) 1: Enable	<i>Example:</i> Enable AIN0 as urgent alarm <b>AINURG=0,1</b>
<i>Read Command</i> <b>AINURG=?</b>		

AINSND Setup AIN Sound Alarm		
<i>Write Command</i> <b>AINSND=&lt;n&gt;,&lt;En&gt;</b>	<i>Parameters</i> <n>: 0~3 (AIN index) <En>: 0: Disable 1: Enable (default)	<i>Example:</i> Enable AIN0 sound alarm <b>AINSND=0,1</b>
<i>Read Command</i> <b>AINSND=?</b>		

AINTP Setup AIN type		
Write Command	Parameters <n>: 0~3 (AIN index) <type>: 0: Voltage 1: Current (default)	Example: <b>AINTP=0,1</b>
<b>AINTP=&lt;n&gt;,&lt;type&gt;</b>		
Read Command		
<b>AINTP=?</b>		

AINDRP Setup AIN value send with daily report sms		
Write Command	Parameters <S <sub>0</sub> S <sub>1</sub> S <sub>2</sub> S <sub>3</sub> >: 4 AIN channels S <sub>n</sub> : 0: Disable (default) 1: Enable	Example: Enable AIN 0/1 daily report <b>AINDRP=1100</b>
<b>AINDRP=&lt;S<sub>0</sub>S<sub>1</sub>S<sub>2</sub>S<sub>3</sub>&gt;</b>		
Read Command		
<b>AINDRP=?</b>		

AINAS Setup the minimum time of twice AD alarm sms		
Write Command	Parameters <min>: 0~255 (min), default is 0 0 means disable the function	Example: <b>AINAS=2</b>
<b>AINAS=&lt;min&gt;</b>		
Read Command		
<b>AINAS=?</b>		

AINLS Setup interval of resend AD alarm state sms		
Write Command	Parameters <min>: 0~255 (min), default is 0 0 means disable the function	Example: <b>AINLS=2</b>
<b>AINLS=&lt;min&gt;</b>		
Read Command		
<b>AINLS=?</b>		

AINDLY Setup timespan of ensure AD alarm		
Write Command	Parameters <sec>: 0~255 (second), default is 0 0 means disable the function	Example: <b>AINDLY=2</b>
<b>AINDLY=&lt;sec&gt;</b>		
Read Command		
<b>AINDLY=?</b>		

A Setup the AIN channel's name		
Write Command	Parameters <nn>: 00~03 (AIN index) <string>: Max 24 characters.	Example: <b>A00=temperature</b>
<b>A&lt;nn&gt;=&lt;string&gt;</b>		
Read Command		
<b>A&lt;nn&gt;=?</b>		

## GPRS parameters

M2MEN Eable or disable GPRS transfer		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>M2MEN=0</b>
<b>M2MEN=&lt;En&gt;</b>		
Read Command		
<b>M2MEN=?</b>		
M2MAPN Setup GPRS APN		
Write Command	Parameters <string>: GPRS access point name	Example: <b>M2MAPN=cmnet</b>
<b>M2MAPN=&lt;string&gt;</b>		
Read Command		
<b>M2MAPN=?</b>		
M2MUID Setup GPRS user name		
Write Command	Parameters <string>: GPRS user name, default is null	Example: <b>M2MUID=user</b>
<b>M2MUID=&lt;string&gt;</b>		
Read Command		
<b>M2MUID=?</b>		
M2MPWD Setup GPRS user password		
Write Command	Parameters <string>: GPRS user password, default is null	Example: <b>M2MPWD=pwd</b>
<b>M2MPWD=&lt;string&gt;</b>		
Read Command		
<b>M2MPWD=?</b>		

M2MIDT Setup GPRS idle timeout		
Write Command	Parameters <min>: 0~65535 (minute) Default is 0	Example: <b>M2MIDT=20</b>
<b>M2MIDT=&lt;min&gt;</b>		
Read Command		
<b>M2MIDT=?</b>		
M2MCTO Setup TCP connection timeouts		
Write Command	Parameters <sec>: 0~65535 (second) Default is 25	Example: <b>M2MCTO=25</b>
<b>M2MCTO=&lt;sec&gt;</b>		
Read Command		
<b>M2MCTO=?</b>		
MODUID Setup modbus TCP unit id		
Write Command	Parameters <id>:	Example: <b>MODUID=2</b>
<b>MODUID=&lt;id&gt;</b>		
Read Command		
<b>MODUID=?</b>		
GDTUEN Eable or disable com data to GPRS server(DTU)		
Write Command	Parameters <En>: 0: Disable (default) 1: Enable	Example: <b>GDTUEN=0</b>
<b>GDTUEN=&lt;En&gt;</b>		
Read Command		
<b>GDTUEN=?</b>		

GMSGEN Enable or disable CWT_IO protocol		
<i>Write Command</i>	<i>Parameters</i> <En>: 0: Disable 1: Enable	<i>Example:</i> <b>GMSGEN=0</b>
<i>Read Command</i>		
<b>GMSGEN=?</b>		

M2MDTSIP Setup GPRS server IP or domain name		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (server index) <ip>: server IP address or domain name	<i>Example:</i> <b>M2MDTSIP0=173.276.78.90</b>
<i>Read Command</i>		
<b>M2MDTSIP=?</b>		

M2MDTSPT Setup GPRS server port		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (server index) <port>: server port	<i>Example:</i> <b>M2MDTSPT0=3000</b>
<i>Read Command</i>		
<b>M2MDTSPT=?</b>		

M2MDTSPO Setup transfer protocol		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (server index) <pt>: Protocol type index 0: TCP 1: UDP	<i>Example:</i> <b>M2MDTSPO0=0</b>
<i>Read Command</i>		
<b>M2MDTSPO=?</b>		

M2MDTSTP Setup server type		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (server index) <st>: service type index 0: CWT_IO 1: GPRS DTU 2: Modbus TCP 3: WMMP (unused)	<i>Example:</i> <b>M2MDTSTP2=0</b>
<i>Read Command</i>		
<b>M2MDTSTP=?</b>		

M2MDTSTO Setup data transfer timeouts		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (server index) <Socket IdleTo>: idle timeout (second) <Server RepTo>: Respond timeout (ms) <HeartTo>: Heart timeout (second)	<i>Example:</i> <b>M2MDTSTO=0</b>
<i>Read Command</i>		
<b>M2MDTSTO=?</b>		



## GPRS commands

<b>M2MDRP</b> Request upload state to server	
<i>Execution Command</i>	Data include DI, DO, AI, modbus etc.
<b>M2MDRP</b>	
<b>M2MDIS</b> Request upload all DI state to server	
<i>Execution Command</i>	
<b>M2MDIS</b>	
<b>M2MDOS</b> Request upload all DO state to server	
<i>Execution Command</i>	
<b>M2MDOS</b>	
<b>M2MADS</b> Request upload all AI data to server	
<i>Execution Command</i>	
<b>M2MADS</b>	
<b>M2MREGS</b> Request upload all local modbus registers to server	
<i>Execution Command</i>	
<b>M2MREGS</b>	
<b>M2MITP</b> Request upload build in temperature to server	
<i>Execution Command</i>	
<b>M2MITP</b>	
<b>M2METP</b> Request upload external DS18B20 temperature to server	
<i>Execution Command</i>	
<b>M2METP</b>	

<b>M2MRTM</b> Re-dial GPRS to connect server	
<i>Execution Command</i>	
<b>M2MRTM</b>	
<b>M2MLIP</b> Query local GPRS interface and IP address	
<i>Execution Command</i>	
<b>M2MLIP</b>	

## Buzzer parameters

BUZEN Enable or disable buzzer sound alarm		
Write Command	Parameters <En>: 0: Disable 1: Enable (default)	Example: <b>BUZEN=1</b>
<b>BUZEN=&lt;En&gt;</b>		
Read Command	The sound alarm include interior buzzer and any output used as Siren or Buzzer	
<b>BUZEN=?</b>		
BUZT Setup buzzer persist time when alarm		
Write Command	Parameters <sec>: 0~255 seconds	Example: <b>BUZT=15</b>
<b>BUZT=&lt;sec&gt;</b>		
Default Time span is 60 seconds		
Read Command		
<b>BUZT=?</b>		
BUZCLR Reset the interior buzzer sound		
Execution Command		
<b>BUZCLR</b>		

## Interior temperature parameters

TMPH Setup high point of interior temperature normal range		
Write Command	Parameters <Val>: -127~128	Example: <b>TMPH=30</b>
<b>TMPH=&lt;Val&gt;</b>		
Read Command		
<b>TMPH=?</b>		
TMPL Setup low point of interior temperature normal range		
Write Command	Parameters <Val>: -127~128	Example: <b>TMPL=10</b>
<b>TMPL=&lt;Val&gt;</b>		
Read Command		
<b>TMPL=?</b>		
TMPB Setup temperature adjustments value		
Write Command	Parameters <Val>: -127~128	Example: <b>TMPB=2</b>
<b>TMPB=&lt;Val&gt;</b>		
Read Command		
<b>TMPB=?</b>		
TMPAS Setup the timespan of twice alarm sms		
Write Command	Parameters <min>: 0~255 (min), default is 0 0 means disable the function	Example: <b>TMPAS=2</b>
<b>TMPAS=&lt;min&gt;</b>		
Read Command		
<b>TMPAS=?</b>		

TMPLS Setup timespan of resend alarm sms		
<i>Write Command</i>	<i>Parameters</i> <min>: 0~255 (min), default is 0 0 means disable the function	<i>Example:</i> <b>TMPLS=2</b>
<i>Read Command</i>		
<b>TMPLS=?</b>		

TMPNDLY Setup timespan of ensure alarm status		
<i>Write Command</i>	<i>Parameters</i> <sec>: 0~255 (second), default is 0 0 means disable the function	<i>Example:</i> <b>TMPNDLY=2</b>
<i>Read Command</i>		
<b>TMPNDLY=?</b>		

TMPOS Setup lags of temperature alarm range		
<i>Write Command</i>	<i>Parameters</i> <val>: 0~255	<i>Example:</i> <b>TMPOS=2</b>
<i>Read Command</i>		
<b>TMPOS=?</b>		

TMPON Enable temperature sensor alarm		
<i>Execution Command</i>		
<b>TMPON</b>		

TMPOFF Disable temperature sensor alarm		
<i>Execution Command</i>		
<b>TMPOFF</b>		

TMPURG Setup temperature sensor alarm is urgency 24 hours		
<i>Write Command</i>	<i>Parameters</i> <En>: 0: Disable 1: Enable	<i>Example:</i> <b>TMPURG=1</b>
<i>Read Command</i>		
<b>TMPURG=?</b>		

TMPSND Setup temperature sensor sound alarm		
<i>Write Command</i>	<i>Parameters</i> <En>: 0: Disable 1: Enable	<i>Example:</i> <b>TMPSND=1</b>
<i>Read Command</i>		
<b>TMPSND=?</b>		

TMPIH Setup interlock output pin of high point		
<i>Write Command</i>	<i>Parameters</i> <DO>: 0~n (output index) 255 is none	<i>Example:</i> <b>TMPIH=0</b>
<i>Read Command</i>		
<b>TMPIH=?</b>		

TMPIL Setup interlock output pin of low point		
<i>Write Command</i>	<i>Parameters</i> <DO>: 0~n (output index) 255 is none	<i>Example:</i> <b>TMPIL=1</b>
<i>Read Command</i>		
<b>TMPIL=?</b>		

TMPR Query temperature normal range		
<i>Execution Command</i>		
<b>TMPR</b>		

TMPC Query current temperature value	
<i>Execution Command</i>	
<b>TMPC</b>	

## Interior battery parameters

BATEN Enable or disable power lost alarm		
<i>Write Command</i>	<i>Parameters</i> <En>: 0: Disable 1: Enable	<i>Example:</i> <b>BATEN=1</b>
<b>BATEN=&lt;En&gt;</b>		
<i>Read Command</i>		
<b>BATEN=?</b>		

POWDLY Setup time of ensure power alarm		
<i>Write Command</i>	<i>Parameters</i> <sec>: 0~65535 seconds Default is 5, 0 means disable the function	<i>Example:</i> <b>POWDLY=15</b>
<b>POWDLY=&lt;sec&gt;</b>		
<i>Read Command</i>		
<b>POWDLY=?</b>		

POW Query power status	
<i>Execution Command</i>	
<b>POW</b>	

## Exterior temperature sensor parameters

ETEMPEN Enable or Disable exterior temperature sensor		
<i>Write Command</i>  <b>ETEMPEN&lt;n&gt;=&lt;En&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <En>: 0: Disable 1: Enable	<i>Example:</i> <b>ETEMPEN0=1</b>
<i>Read Command</i>  <b>ETEMPEN&lt;n&gt;=?</b>		
ETEMPH Setup high point of exterior temperature normal range		
<i>Write Command</i>  <b>ETEMPH&lt;n&gt;=&lt;Val&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <Val>: -55~125	<i>Example:</i> <b>ETEMPH0=30</b>
<i>Read Command</i>  <b>ETEMPH&lt;n&gt;=?</b>		
EEMPL Setup low point of exterior temperature normal range		
<i>Write Command</i>  <b>EEMPL&lt;n&gt;=&lt;Val&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <Val>: -55~125	<i>Example:</i> <b>EEMPL0=10</b>
<i>Read Command</i>  <b>EEMPL&lt;n&gt;=?</b>		
ETEMPB Setup temperature adjustments value		
<i>Write Command</i>  <b>ETEMPB&lt;n&gt;=&lt;Val&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <Val>: adjustment value	<i>Example:</i> <b>ETEMPB0=2</b>
<i>Read Command</i>  <b>ETEMPB&lt;n&gt;=?</b>		

ETEMPAS Setup the timespan of twice alarm sms		
<i>Write Command</i>  <b>ETEMPAS&lt;n&gt;=&lt;min&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <min>: 0~255 (min) 0 means disable the function	<i>Example:</i> <b>ETEMPAS0=2</b>
<i>Read Command</i>  <b>ETEMPAS&lt;n&gt;=?</b>		

EEMPLS Setup timespan of resend alarm sms		
<i>Write Command</i>  <b>EEMPLS&lt;n&gt;=&lt;min&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <min>: 0~255 (min) 0 means disable the function	<i>Example:</i> <b>EEMPLS0=2</b>
<i>Read Command</i>  <b>EEMPLS&lt;n&gt;=?</b>		

ETEMPDL Setup timespan of ensure alarm sms		
<i>Write Command</i>  <b>ETEMPDL&lt;n&gt;=&lt;sec&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <sec>: 0~255 seconds 0 means disable the function	<i>Example:</i> <b>ETEMPDL0=2</b>
<i>Read Command</i>  <b>ETEMPDL&lt;n&gt;=?</b>		

ETEMPOS Setup temperature alarm range lags		
<i>Write Command</i>  <b>ETEMPOS&lt;n&gt;=&lt;val&gt;</b>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <val>: 0~255	<i>Example:</i> <b>ETEMPOS0=2</b>
<i>Read Command</i>  <b>ETEMPOS&lt;n&gt;=?</b>		

ETEMPURG Setup temperature sensor alarm is urgency 24 hours		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <En>: 0: Disable 1: Enable	<i>Example:</i> <b>ETEMPURG0=1</b>
<b>ETEMPURG&lt;n&gt;=&lt;En&gt;</b>		
<i>Read Command</i>		
<b>ETEMPURG&lt;n&gt;=?</b>		

ETEMPSND Setup temperature sensor sound alarm		
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 (temperature sensor index) <En>: 0: Disable 1: Enable	<i>Example:</i> <b>ETEMPSND0=1</b>
<b>ETEMPSND&lt;n&gt;=&lt;En&gt;</b>		
<i>Read Command</i>		
<b>ETEMPSND&lt;n&gt;=?</b>		

ETEMPR Query all temperature channels normal range	
<i>Execution Command</i>	
<b>ETEMPR</b>	

ETEMPC Query all channels current temperature value	
<i>Execution Command</i>	
<b>ETEMPC</b>	

## Interlock parameters

IOOC Setup outputs action	
<i>Write Command</i>	<i>Parameters</i> <nnnn>: 0~3 Outputs' action when alert by "link with" <xxxx>: 0~3 Outputs' action when recover by "link with" n & x: 0: OPEN 1: CLOSE 2: CLOSE PULSE 3: CLOSE 300S 4: CLOSE 30S 5: CLOSE 60S 6: NONE
<b>IOOC=&lt;nnnn&gt;&lt;xxxx&gt;</b>	
<i>Read Command</i>	
<b>IOOC=?</b>	

IOOA Setup link with										
<i>Write Command</i>	<i>Parameters</i> <n>: 0~3 output index <index>: "link with" index  <table border="0"> <tr> <td>0: NONE</td> <td>3: 2 input alert</td> <td>6: system power down</td> </tr> <tr> <td>1: 0 input alert</td> <td>4: 3 input alert</td> <td>7: Server call</td> </tr> <tr> <td>2: 1 input alert</td> <td>5: Interior temp alert</td> <td>8: humidity sensor</td> </tr> </table>	0: NONE	3: 2 input alert	6: system power down	1: 0 input alert	4: 3 input alert	7: Server call	2: 1 input alert	5: Interior temp alert	8: humidity sensor
0: NONE	3: 2 input alert	6: system power down								
1: 0 input alert	4: 3 input alert	7: Server call								
2: 1 input alert	5: Interior temp alert	8: humidity sensor								
<b>IOOA=&lt;n&gt;&lt;index&gt;</b>										
<i>Read Command</i>										
<b>IOOA=?</b>										

Example: config output0 on when input3 alert and output0 off when input3 recover

Linkage outputs

Output No.	When alert	When recover	Link with
0	1: CLOSE	0: OPEN	3 INPUT ALERT

The sms command is:  
**IOOC16660666**  
**IOOA04**



## Setup timers

mtimer Setup system timers		
<i>Write Command</i> <b>mtimer&lt;n&gt;=&lt;HH&gt;,&lt;MM&gt;,&lt;action&gt;</b>	<i>Parameters</i> <n>: 0~5 (mtimer index) <HH>: 0~24 (hour) <MM>: 0~60 (minute) <action>: 0~39	<i>Example:</i> Setup send daily report sms at 17:50 everyday <b>mtimer0=17,50,16</b>
<i>Read Command</i> <b>mtimer=?</b>		

mspan Setup minutes timers		
<i>Write Command</i> <b>mspan&lt;n&gt;=&lt;min&gt;,&lt;action&gt;</b>	<i>Parameters</i> <n>: 0~5 (mspan index) <min>: 0~65535 (minute) <action>: 0~39	<i>Example:</i> Setup send daily report sms every 30 minutes <b>mspan0=30,16</b>
<i>Read Command</i> <b>mspan=?</b>		

sspan Setup second timers		
<i>Write Command</i> <b>sspan&lt;n&gt;=&lt;min&gt;,&lt;action&gt;</b>	<i>Parameters</i> <n>: 0~5 (sspan index) <min>: 0~65535 (second) <action>: 0~39	<i>Example:</i> Setup send daily report sms every 30 seconds <b>sspan0=30,16</b>
<i>Read Command</i> <b>sspan=?</b>		

mdate Setup week timers		
<i>Write Command</i> <b>mdate&lt;n&gt;=&lt;day&gt;,&lt;HH&gt;,&lt;MM&gt;,&lt;action&gt;</b>	<i>Parameters</i> <n>: 0~6 <day>: 0~6 (week day) <HH>: 0~24 (hour) <MM>: 0~60 (minute) <action>: 0~39	<i>Example:</i> Setup send daily report sms at 18:34 Monday <b>Mdate0=0,18,34,16</b>
<i>Read Command</i> <b>mdate=?</b>		

Action index:

0: None	14: Pulse OC 3	28: Howl alarm
1: Disarm	15: Snapshot	29: Clocker
2: Arm	16: daily report sms	30: Enable buzzer
3: Driver OC 0 (output0 on)	17: Export state by uart0	31: Disable buzzer
4: Driver OC 1 (output1 on)	18: Upload state by sms	32: Upload din by gprs
5: Driver OC 2 (output2 on)	19: Exec user cmd0	33: Upload dout by gprs
6: Driver OC 3 (output3 on)	20: Exec user cmd1	34: Upload ain by gprs
7: OC 0 off	21: Exec user cmd2	35: Upload modbus by gprs
8: OC 1 off	22: Exec user cmd3	36: Upload graycode by gprs
9: OC 2 off	23: Exec user cmd4	37: Save samples to flash
10: OC 3 off	24: Exec user cmd5	38: Upload din counter
11: Pulse OC 0	25: Exec user cmd6	39: Din counter reset
12: Pulse OC 1	26: Upload state by gprs	
13: Pulse OC 2	27: Buzzer beep	

## Setup User command

U Setup the User defined commands		
<p><i>Write Command</i></p> <p><b>U&lt;nn&gt;=&lt;string&gt;</b></p>	<p><i>Parameters</i></p> <p>&lt;nn&gt;:            00: User defined command 0            01: User defined command 1            .....            05: User defined command 5</p> <p>&lt;string&gt;:            user defined command contents            max 24 characters</p>	<p><i>Example:</i></p> <p>Use "abc" instead of command "IOOH0"</p> <p><b>U00=abc</b></p>
<p><i>Read Command</i></p> <p><b>U&lt;nn&gt;=?</b></p>		

Y Setup the User defined commands mapped RTU commands		
<p><i>Write Command</i></p> <p><b>Y&lt;nn&gt;=&lt;string&gt;</b></p>	<p><i>Parameters</i></p> <p>&lt;nn&gt;:            00: RTU command 0            01: RTU command 1            .....            05: RTU command 5</p> <p>&lt;string&gt;:            RTU command contents            max 24 characters</p>	<p><i>Example:</i></p> <p>Use "abc" instead of command "IOOH0"</p> <p><b>Y00=IOOH0</b></p>
<p><i>Read Command</i></p> <p><b>Y&lt;nn&gt;=?</b></p>		

## System operation commands

PW Setup system password		
<p><i>Write Command</i></p> <p><b>PW=&lt;pad&gt;</b></p>	<p><i>Parameters</i></p> <p>&lt;psd&gt;: 6 digits</p>	<p><i>Example:</i></p> <p><b>PW=123456</b></p>
<p><i>Read Command</i></p> <p><b>PW=?</b></p>		

DAYRP Query the RTU status (Daily report SMS)	
<p><i>Read Command</i></p> <p><b>DAYRP</b></p>	

ARM/BF Arm the RTU system	
<p><i>Execution Command</i></p> <p><b>ARM</b></p>	

DISARM/CF Disarm the RTU system	
<p><i>Execution Command</i></p> <p><b>DISARM</b></p>	

RST Reset the RTU power	
<p><i>Execution Command</i></p> <p><b>RST</b></p>	

LOADF Load factory settings	
<p><i>Execution Command</i></p> <p><b>LOADF</b></p>	