

300, 301, 302, 303- Rs232 protocol

RS232	function	note
K(ASC 4BH)	Ask for model No.	Return 4 bytes
H(ASC 48H)	Hold button	Simulate HOLD button
T(ASC 54H)	301,303:T1/T2/T1-T2(TIMER) 300,302:TIMER	Simulate T1/T2/T1-T2 button(301,303) or TIMER(300,302)button
M(ASC 4DH)	AVG/MAX/MIN	Simulate AVG/MAX/MINbutton
N(ASC 4EH)	AVG/MAX/MIN	Simulate hold AVG/MAX/MIN button for 2 seconds
R(ASC 52H)	REL	Simulate RELbutton
C(ASC 43H)	C/F	Simulate C/F
A(ASC 41H)	nquire all encoded data	See below

explanation:

Command K: Return 4 bytes. For example, when sends command "K" to 300, then it will return "3", "0", "0", ASCII (13).

Command A(301,303):

1st BYTE:

The first byte is the start byte , it value is 2.

2nd BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
C/F	Low Bat	Hold	REL	K/J	MAX/AVG/MIN		

bit 2 bit 1 bit0

0 0 0 ->normal mode

0 0 1 ->MAXIMUM mode

0 1 0 ->MINIMUM mode

1 0 0 ->AVG mode

1 1 1 -> calculate MAX/MIN/AVG in background and lcd "MAX""AVG""MIN" will flash.

bit3:1->0->K TYPE 1->J TYPE(301 only has K type)

bit4:1->REL

bit5:1- HOLD 0->not HOLD

bit6:1->LOW BATTERY 0->BATTERY NORMAL

bit7:1->C 0->F

3rd BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
		point	minus	OL	point	minus	OL

bit0:1->main window value is OL 0->not OL

bit1:1->main window value is minus, 0->main window value is plus.

bit2:1->4th byte and 5th byte represent ##### 0-> 4th byte and 5th byte represent ###.#

bit3:1->sub window value is OL 0->not OL

bit4:1->sub window value is minus, 0->sub window value is plus.

bit5:1->6th byte and 7th byte represent ##### 0-> 6th byte and 7th byte represent ###.#

bit7 bit6:00->Main window is T1-T2,sub window is T1

01->Main window is T1-T2, sub window is T2
 10->Main window is T1, sub window is T2
 11->Main window is T2, sub window is T1

- 4th BYTE:** first two BCD code of main window value.
- 5th BYTE:** last two BCD code of main window value
- 6th BYTE:** first two BCD code of sub window value.
- 7th BYTE:** last two BCD code of sub window value.
- 8th BYTE**

The last byte is the end byte , it value is 3, first and last byte are used to check frame error.

A Command(300,302):

1nd BYTE:

The first byte is the start byte , it value is 2.

2nd BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
C/F	Low Bat	Hold	REL	K/J	MAX/AVG/MIN		

bit 2 bit 1 bit0

- 0 0 0 ->normal mode
- 0 0 1 ->MAXIMUM mode
- 0 1 0 ->MINIMUM mode
- 1 0 0 ->AVG mode
- 1 1 1 -> calculate MAX/MIN/AVG in background and lcd "MAX""AVG""MIN" will flash.

bit3:1->0->K TYPE 1->J TYPE(300 only has K type)

bit4:1->REL

bit5:1- HOLD 0->not HOLD

bit6:1->LOW BATTERY 0->BATTERY NORMAL

bit7:1->C 0->F

3th BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
no use	no use	no use	Time unit	no use	X1_X10	minus	OL

bit0:1->main window value is OL 0->not OL

bit1:1->main window value is minus, 0->main window value is plus.

bit2:1->4th byte and 5th byte represent ##### 0-> 4th byte and 5th byte represent ###.#

bit4:1->sub window value is MM:SS, 0-> sub window value is HH:MM

- 4th BYTE:** first two BCD code of main window value.
- 5th BYTE:** last two BCD code of main window value
- 6th BYTE:** first two BCD code of sub window value.
- 7th BYTE:** last two BCD code of sub window value.