

Baudrate : 9600
 Parity: none
 Data bits : 8
 Stop bits : 1

Note :you have to send 8 byte to meter, for example, if you want to send A comand, the format will be 0x02 0x41 0x00 0x00 0x00 0x00 0x00 0x03

| RS232 command | function | note |
|---------------|-------------------|------------------------------------|
| A(ASC 41H) | Send encoded data | Return encoded 16 byte |
| C(ASC 43H) | C/F button | Return the same as you send |
| E(ASC 45H) | REC button | Return the same as you send |
| H(ASC 48H) | HOLD button | Return the same as you send |
| K(ASC 4BH) | Ask model | Return 0x33 0x37 0x36 0x0D 4 bytes |
| M(ASC 4DH) | MAX/MIN button | Return the same as you send |
| N(ASC 4EH) | Exit MAX/MIN mode | Return the same as you send |
| | | |
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| | | |

Command A(376):

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 | Memory Full | MAX/MIN | Recording | |

bit0: 1->now is recording

bit2: bit 1

0 0 ->normal mode

0 1 ->MAXIMUN mode

1 0 ->MINIMUN mode

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

bit3: 1 -> Memory Full .

bit4:1->REL

bit5:1- HOLD 0->not HOLD

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

bit7:0->C 1->F

3nd BYTE:

bit0 ~ bit 4 : no use
bit5 auto power off on
bit6 ~ bit 7 : no use

4th BYTE:

Bit7 1-> minus 0->plus ;
Bit6 1-> - OL ;
Bit5 ~ bit 4 : no use
Bit3 1-> OPEN ;
Bit2 ~ bit 1 : no use
Bit0 1-> Lcd reading = $(65536 + (5^{\text{th}} \text{ BYTE}) \times 256 + 6^{\text{th}} \text{ BYTE}) / 100.0$
0-> Lcd reading = $((5^{\text{th}} \text{ BYTE}) \times 256 + 6^{\text{th}} \text{ BYTE}) / 100.0$

5th BYTE: => High byte of Lcd reading value

6th BYTE: => Low byte of Lcd reading value

7th BYTE:

Bit7 1-> MAX value is minus
Bit6 1-> MAX value is OL
Bit5 ~ bit 4 : no use
Bit3 1-> MAX value is N/A(OPEN)
Bit2 ~ bit 1 : no use
Bit0 1-> MAX value = $(65536 + (8^{\text{th}} \text{ BYTE}) \times 256 + 9^{\text{th}} \text{ BYTE}) / 100.0$
0-> MAX value = $((8^{\text{th}} \text{ BYTE}) \times 256 + 9^{\text{th}} \text{ BYTE}) / 100.0$

8th BYTE: => High byte of Max

9th BYTE: => Low byte of Max

10th BYTE:

Bit7 1-> MIN value is minus
Bit6 1-> MIN value is OL
Bit5 ~ bit 4 : no use
Bit3 1-> MIN value is N/A(OPEN)
Bit2 ~ bit 1 : no use
Bit0 1-> MIN value = $(65536 + (11^{\text{th}} \text{ BYTE}) \times 256 + 12^{\text{th}} \text{ BYTE}) / 100.0$
0-> MIN value = $((11^{\text{th}} \text{ BYTE}) \times 256 + 12^{\text{th}} \text{ BYTE}) / 100.0$

11th BYTE: => High byte of MIN value

12th BYTE: => Low byte of MIN value

13th BYTE: => represent HH of HH:MM

14th BYTE: => represent MM of HH:MM

15th BYTE: => No use

16th BYTE:

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

Example:

After sending A command to 376, it returned 0x02 0x06 0x20 0x00 0x0C 0x76 0x00 0x0C 0xBC 0x00 0x0B 0xBE 0x08 0x41 0x82 0x03

The 2nd byte is 0x06, that is 00000110b

bit0 = 0->not recording

bit2 bit 1=11 -> calculate MAX/MIN in background and lcd "MAX""MIN" will flash.

bit3 =0 -> Memory is not full .

bit4=0->not in REL

bit5=0->not HOLD

bit6=0->BATTERY NORMAL

bit7=0->C

The 3rd byte is 0x20, that is 00100000b

bit5=1->in auto power off mode

The 4th byte: is 0x00, that is 00000000b

Bit7=0->plus ;

Bit6=0-> not OL ;

Bit5 ~ bit 4 : no use

Bit3=0-> not OPEN ;

Bit2 ~ bit 1 : no use

Bit0=0-> Lcd reading = ((5th BYTE) x 256 + 6th BYTE)/100.0

5th BYTE=0x0C=12(decimal) 6th BYTE=0x76=118(decimal)

So, the Lcd reading=(12x256+118)/100.0=31.90

The 7th byte: is 0x00, that is 00000000b

Bit7=0-> MAX value is plus ;

Bit6=0-> MAX value is not OL ;

Bit5 ~ bit 4 : no use

Bit3=0-> MAX value is not OPEN ;

Bit2 ~ bit 1 : no use

Bit0=0-> MAX value = ((8th BYTE) x 256 + 9th BYTE)/100.0

8th BYTE=0x0C=12(decimal) 9th BYTE=0xBC=188(decimal)

So, the MAX value =(12x256+188)/100.0=32.60

The 10th byte: is 0x00, that is 00000000b

Bit7=0-> MIN value is plus ;

Bit6=0-> MIN value is not OL ;

Bit5 ~ bit 4 : no use

Bit3=0-> MIN value is not OPEN ;

Bit2 ~ bit 1 : no use

Bit0=0-> MIN value = ((11th BYTE) x 256 + 12th BYTE)/100.0

11th BYTE=0x0B=11(decimal) 12th BYTE=0xBE=190(decimal)

So, the MIN value = (11x256+190)/100.0=30.06

13th BYTE=0x08 14th BYTE=0x41

Represents that the clock shows 08:41