



DR-200B Temperature Recorder Instructions

General Introduction:

DR-200B Temperature Recorder is widely used for the storage and transportation of the foodstuff, medicine, fresh and live goods. It is used in industries, which are accordant with HACCP System Certificate as well. Furthermore, it can be used in locales where need Temperature supervision, such as labs. DR-200B Temperature Recorder has features as following: reliable performance, large data recording capacity, high accuracy, easy-to-use, passwords protection, data reservation after electricity being cut off, etc.

Main Technical Parameters:

- ◆ Temperature measuring range: $-40^{\circ}\text{C} \sim 110^{\circ}\text{C}$
- ◆ Accuracy: $\pm 0.5^{\circ}\text{C}$ when at $-10^{\circ}\text{C} \sim 85^{\circ}\text{C}$; $\pm 1^{\circ}\text{C}$ at others
- ◆ Resolution: 0.1
- ◆ Alarming Temperature Difference: $1 \sim 20^{\circ}\text{C}$ (adjustable)
- ◆ Alarming output: buzzer and alarming relay
- ◆ Recording cycle: 1Min \sim 24Hours (adjustable)
- ◆ Recording and measuring ways: one way
- ◆ Printing output: Mini-type thermal printer output
- ◆ Power Supply: 12V DC \sim 24V DC / 12V AC \sim 24V AC
- ◆ Startup delay: 0 \sim 6 hours (adjustable)
- ◆ Alarming delay: 0 \sim 90 minutes (adjustable)
- ◆ Recording capacity: 4500 points (MAX.)
- ◆ Alarming relay contact capacity: 8A/220VAC

Descriptions of operation:

- ◆ Parameter browse

Under normal working status, press ▲ key to enter into parameter browse. By pressing ▲ key to circularly display item-A basic parameters: AXXX, 2AXX, 3AXX, 4AXX and 5AXX. No key operation within 30 seconds, the system will return to normal working status.

- ◆ Parameter setting:

Press SET key for 5 seconds to enter into parameter setting status, LED displays "E—" indicating to input the password. Input the password value E000 \sim E999 (adjustable) by pressing ▲ key, ▼ key and SEL key: SEL key- set the Hundreds digit 0 \sim 9; ▲ key- set the Tens digit 0 \sim 9; ▼ key-set the unit digit 0 \sim 9. Press SET key to confirm after input the password. It will return to the waiting status provided the input password is wrong. If continuously input wrong password for 3 times or no key operation for 30 seconds, it will return to original working status. (Password canceled when password is 000) Correctly input the passwords to enter the menu setting (8 items in total); LED displays the setting submenu of A basic parameter in default by displaying -AA-. Press SEL key to select these 8 submenus: basic parameter setting submenu-AA-, system time setting submenu-BB-, recording cycle setting submenu-CC-, print setting submenu-DD-, password modifying submenu-EE-, User name setting submenu -GG-, Working site setting submenu -HH- and Recording data clear-up submenu -CL-. As to submenus -AA-, -BB-, -CC-, -DD- and -EE-, press SET key to enter the current setting submenus displaying on the LED. After entering the submenu, press SEL key to select the modifying items and press ▲ key or ▼ key to modify them; After modifying, press SET key to save the changed parameters and return to the menu on the top. As to submenus -GG- and -HH-, press SET key to enter into the setting submenus displaying on the LED. Press SET key to the previous character and press SEL key to the next one, press ▲ key to select the current character in a step-up order and press ▼ key to select the current character in a descending order(see Addenda 2). Press SET key for 3 seconds to save the changed parameters, and return to the menu on the top. Select submenu -CL-, then press SET key to clear the data recorded. Select ESC and then press SET key to quit from the setting status and return to the working status.

Parameter List:

Menu Items	Function	Setting range	Default
—AA— Basic parameter setting submenu			
AXXX	Temperature	-39 $^{\circ}\text{C}$ —109 $^{\circ}\text{C}$	25 $^{\circ}\text{C}$
2AXX	Alarming difference in temperature	0 \sim 20 $^{\circ}\text{C}$	0 $^{\circ}\text{C}$
3AXX	Startup delay	0 \sim 6 Hours	0
4AXX	Alarm delay	0 \sim 90 Minutes	5
5AXX	Printing Language selection	0 Polish 1 English	1
—BB— System time setting submenu			
B0XX	Year Setting	(20)00—(20)79(Year)	
2BXX	Month Setting	01—12 (Month)	
3BXX	Day Setting	01—31 (Day)	
4BXX	Hour Setting	00—23 (Hour)	
5BXX	Minute Setting	00—59 (Minute)	
—CC— Recording cycle setting submenu			
C0XX	Hour setting	00—23 (Hour)	00
2CXX	Minute setting	00—59 (Minute)	05
—DD— Print setting submenu			
D0XX	Print start-up month setting	-1 (Last month) 0 (Current month)	-1
2DXX	Print start-up date setting	1-31 (Date)	01
3DXX	Print start-up hour setting	00-23 o'clock	00
4DXX	Print end month setting	-1 (Last month) 0 (Current month) Jan.-Dec.	0
5DXX	Print end date setting	1-31 (Date)	31
6DXX	Print end hour setting	00-23 o'clock	23
—EE— password modifying submenu			
E---	New password input	000—999	000
—GG— User name setting submenu (≤ 32 characters input available)			
XX-X	New user name input	See Addenda2	Blank space
-HH- working site setting submenu (≤ 25 characters input available)			
XX-X	New working site input	See addenda2	001
-CL- Recording data clear-up submenu			
CL	Data clear-up status		

Error status:

- ◆ Probe error: Blinkingly displays error code EE with buzzer alarming when sensor occurs short circuit or open circuit. ERROR indicator light on.
- ◆ Alarm when exceeding temperature limits: the displaying values blink with buzzer alarming when measuring temperature \geq setting temperature + alarming temperature difference or measuring temperature \leq setting temperature - alarming temperature difference, ALARM indicator light on, press ▼ key to cancel alarming sound; No alarming sound when 2AXX is 0.
- ◆ Exceeding upper measuring limits: Blinkingly displays HH with buzzer alarming, ALARM indicator light on, press ▼ to cancel alarming sound.
- ◆ Exceeding lower measuring limits: Blinkingly displays LL with buzzer alarming, ALARM indicator light on, press ▼ to cancel alarming sound.
- ◆ Alarming output: Relay output

Work flow:

After electrified, LED displays the current temperature. When the parameter 3AXX (start-up delay) is not 0, REC indicator light off. When data recording, the recorder will work as per the set parameters with REC indicator light flashing slowly. Users can reset relative parameters according to necessities, and the recorder will work as per the reset parameters. It is necessary to re-electrify the instrument for start-up delay to make the parameters take effective. When measuring temperature exceeds the alarm set value the indicator light on, buzzer sound and the displaying value blinking displays, alarming relay output; press ▼ to cancel the alarming sound and the relay alarming status remains. When the temperature recovers to normal value, alarm cancelled automatically. Under normal working state, press SEL key to print data. LED displays FF when printing, press SEL key to stop printing.

Connections of power input, alarming normally opened contact output and sensor input:

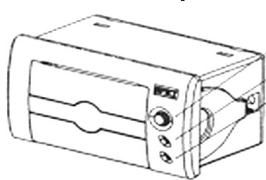
- ◆ Rounded socket (or left double-hole socket)—Power input
- ◆ Right double-hole socket —Alarm output
- ◆ Three-hole socket —Sensor input
- ◆ Caution: When connect the red, white and black lines please follow the wire code on the back of the recorder.

Notices:

When the instrument normally works, the printer is under "on line" status with its on-line indicator light on. Prohibit to pressing "SEL" or "LF" key when the instrument is under printing status.

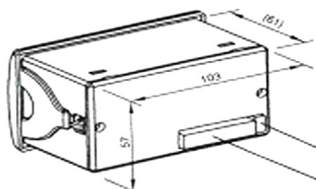
Operations of Mini Thermal Printer:

1. Control panel



- OPEN** press down to open the door
 - SEL** Red indicator light is online indicator light. It is online when red light on and offline when light off.
 - LF** Green indicator light is power indicator light and always on under electrified status. LF key indicates delivering paper.
- Methods of delivering paper:** When electrified, press down SEL key. After red light off, press LF to deliver paper.
- Self-testing methods:** Press SEL key and hold on, electrify the printer and then loosen SEL key, the printer will print out the self-testing prospectus.

2. Port size

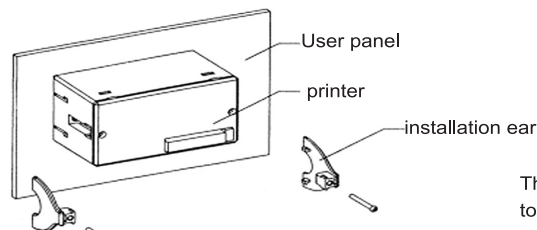


Port size: 103×57

- power socket
- Data interface

The second step: Inset the installation era into the corresponding position of the printer and fit it, press the user panel tightly. See the fig.

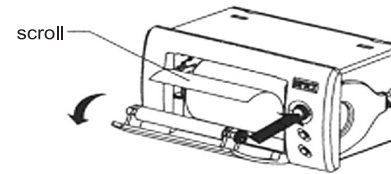
3. Clues to installation



The first step: Inset the printer into the panel.

The third step: Tighten the screw from the back to fasten the installation ear. (see the fig.) Then install another installation ear as per the second step.

4. Scroll installation



Press down OPEN key to open the door, install the scroll and close the door.

character list:

User name setting -GG-
Working site setting -HH-

Digital alphabet

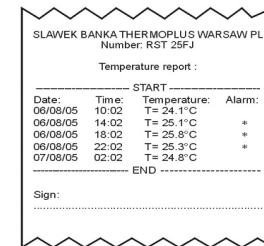


For example:
If you set "G" parameter: SLAWEK BANKA-1979

in printing report you will see: SLAWEK BANKA-1979

printing paradigm:

English



Polish

