

II. Care and Maintenance

1. This instrument functions with accurate Cold-junction Temperature Compensation, but, if it is used in the place with high temperature or high humidity, it will produce deference or error message.
2. The temperature measurement of this instrument is based on thermocouple. In order to avoid damage to the instrument and electric shock, when the measured material has voltage or static electricity, please clear the voltage or cut off the power and then go to measure.
3. For getting the most accurate value, please keep it stable for a while.
4. To avoid the incorrect reading, if the low symbol appears, please replace the battery before using.
5. When not in use, please remove the battery from the instrument, put the main instrument and all accessories into the protection case and keep the kit in a dry, dust-free environment out of direct sunlight.
6. Please contact the local agent or our customer service department for any question or product repair.

MEMO

TK-62 Digital Thermometer

Dual K/R Thermocouple Input

Instruction Manual



TK-62 Digital Thermometer has distinctively ergonomic design for fast and easy operating. **TK-62** is a gorgeous temperature measuring instrument which functions with dual K/R thermocouples, and it can be used to monitor the whole process of temperature changes from raw material to end products; besides, it can be switched to general **K(CA)-TYPE** or **R(PR)-TYPE** - for high temperature.



1. Input for thermocouple probes
2. LCD display (with Back-light)
3. **H-D** key (Hold & Data)
4. **K/R** key
5. **⏻** key (power)
6. External power supply (AC adaptor)
7. CAL calibration key
8. **☀** key(Back-light)
9. **C/P** key
10. Signal output
11. Instrument model no.& S/N no.
12. Battery cover

Specification of TK-62

Input	Thermocouple K-TYPE (CA)	Thermocouple R-TYPE (PR)
Measuring Range	- 200 ~ +1372°C (-328.0 ~ + 1372°F)	- 20 ~ +1772°C (- 4 ~ +3221°F)
Resolution	0.1°C Between -199.9 to +199.9°C 1°C Above 200°C (Auto Ranging)	
Accuracy(at 25°C)	± 0.1% of rdg+0.2°C , ± 0.1% of rdg+1°C (Above 200°C)	
Sampling rate	Approx. 0.5 sec/reading	
RS-232 output	0.1°C/1Bit (- 200.0 ~ +1800.0°C) , Baud Rate=57600	
Power supply	9V006P Battery x 1 About 160 hours for continuing use or DC-9V Adaptor (option)	
Dimension/Weight	140 x 56 x 32 mm (L x W x D), Approx.120g (without battery)	

- ※ Above data of "Accuracy" and "Sampling rate" exclude the error of temperature probes.
- ※ The specification of TK-62 will be the lasted version of Rixen, and it's subject to change without notice.

RS-232 Transmission Functions

The RS-232 transmission port of TK-62 is single side data transmission, it functions with 3 signal composed grounding wires to receive and input. We suggest that you choose the original transmission cable or shorter than 10 meters cable to connect PC and instrument.

※ **Notice: RS-232 transmission can not configure a variety of instruments on the same port.**

a. Transmission Status: 57600 / 8 / N / 1

b. Transmission Content (8BIT):

START	TYPE	MOD	MSD	LSD	CHECK	END
A8H	①	②	HI-DATA	LO-DATA	FFH	8AH

① : BIT [7:0] = Instrument Model
TK-62.R=00H

② : BIT [7:4] = Thermocouple Type

K	0000	R	0100
J	0001	S	0101
E	0010	N	0110
T	0011	B	0111

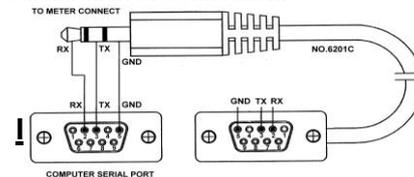
BIT [3:2] = Instrument Status

NORMAL	00
HOLD	01
MAX	10
MIN	11

BIT [1] = Power Model
Automatic Power Off = 0
Manual Power Off = 1

BIT [0] = Power
Enough Power = 0
Low Power = 1

c. Illustration of Connection:



Key Description

Key	Function	Description	LCD display
	Power key	<ul style="list-style-type: none"> Press once for power on or off (If the instrument without any button operation, it will automatically turn off after 5 minutes.) When power off, hold then press to turn on and process operating mode. 	<p>8 8 8 8 (about 2 seconds)</p>
	A. (HOLD) Hold value, Max./Min. value. B. Manual power off	<ul style="list-style-type: none"> First press Hold Value Second Value Third Min. Value Fourth Measuring mode <p>+ as above</p>	<ul style="list-style-type: none"> Measuring→ HOLD HOLD→ MAX MAX → MIN →Measuring mode <p>M</p>
	Select K/R type thermocouple	Press this key to switch thermocouple type (K or R-TYPE)	K → R → K
	LCD back-light key	Press this key to turn on/off the back-light of LCD. ※ LCD Back-light will be auto power off after 2 min. for saving power.	
	°C/F Switchable	Press this key to switch °C / °F	°C → °F, °F → °C

III. Operating Instructions

A. Preparation

A-1 Please check all accessories of the instrument before using (each item: 1pc) :

- ◇ Main instrument -----NO.TK-62
- ◇ Soft portable leather case -----NO.765C
- ◇ 9V battery (option)-----NO.B09V
- ◇ RS-232 cable-----NO.6201C
- ◇ Instruction manual

A-2 Set battery:

- ◇ Press the round mark on the instrument battery cap and push the cap below and set the batteries by ⊕ ⊖ polarity and push back the battery cap. ※Notice: Please be sure to buckle the battery and please notice the wire can't be squeezed.

A-3 Insert the temperature probe into ⊕ ⊖, and make sure the probe is fully inserted and firm.

A-4 Power on and power model :

- ◇ Auto power off mode→ Press key to turn on TK-62, if there is no operation within 5 minutes, it will turn off automatically. ※At about 5 seconds before auto power off, this instrument will make a

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	Power key	<ul style="list-style-type: none"> Press once for power on or off (If the instrument without any button operation, it will automatically turn off after 5 minutes.) When power off, hold then press to turn on and process manual operating mode. 	<p>8 8 8 8 (about 2 seconds)</p>
	A. (HOLD) Hold value, Max./Min. value. B. Manual power off	<ul style="list-style-type: none"> First press Hold Value Second Max. Value Third Min. Value Fourth Measuring mode <p>+ as above</p>	<ul style="list-style-type: none"> Measuring→ HOLD HOLD→ MAX MAX → MIN →Measuring mode <p>M</p>
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A-4 Power on and power model :

- Auto power off mode→ Press key to turn on TK-62, if there is no operation within 5 minutes, it will turn off automatically. ※At about 5 seconds before auto power off, this instrument will make a "Be" sound alert.

- ◇ Manual power off mode→When power off, hold **(H-D)** and press  to turn on TK-62 and the instrument will process manual power off mode, except for pressing  or battery exhausted, the instrument will not turn off automatically.

※Whatever auto/manual power off mode, just press  for power off.

B. Measurement method

- B-1 Finish the power on steps as above, please check the battery power indicator to sure the power is enough and it is available to process temperature measurement and every function operating.
- B-2 Please select corresponding thermocouple type to get accrete temperature on the display.

C. Record function operating – use **(H-D)** as the operation below:

- C-1 Reading value hold function (**HOLD**)
When get reading value at B-2 step, press one time to hold the value on the display.
- C-2 Maximum reading value function (**MAX**)
Press the key twice in the normal mode to read the maximum value.
- C-3 Minimum reading value function (**MIN**)
Press the key thrice in the normal mode to read the minimum value.
※Press above key again, and it will return to the normal mode.

D. LCD Back-light function

- On : In the normal mode, pres  to turn on back-light.
- Off : When back-light is on, press  to turn off back-light.

※If there is no any operation within 120 seconds, back-light will be turned off automatically.
※Back-light function will deplete power speedily, if it is not necessary, please don't use back-light as possible.

E. Calibration and adjustment function

This instrument has been adjusted completely before ex-factory. If the condition is special and needs to adjust the instrument, please use Standard Thermocouple Calibrator to adjust TK-62 by using small  type screwdriver to fine tune this instrument to get the correct calibration value.

- ◆Before calibrating, please check if the power is enough and then process the calibration.
- ◆If you don't know if the instrument needs to be adjusted, please contact our technical department firstly and don't change any original setting.

F. Power inspection function

The display left above has a power indicator symbol, if the power is not enough, the symbol will flash and make a voice "Be" warning about 5 seconds. Please replace the new batteries immediately and then operate the instrument again.

"Be" sound alert.

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