MAXIMUM
35°
5°
MINIMUM

INDOOR

GUARANTEE
2 YEAR

ON-OFF
SWITCH

250 VOLT
5(3) AMP

BATTERY
2 X AAA
ALKALINE
EXCLUSIVE

Roos Electronics bv, Gilze, Holland
WWW.ELRO-NL.COM - WWW.ELRO - BE.COM
Roos Electronics GmbH Arnsberg-Germany
WWW.ROOSELECTRONICS.DE

MANUAL

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1 INTRODUCTION

This thermostat can replace most common indoor residential thermostat and is designed to be used with electric, gas or oil heating system.

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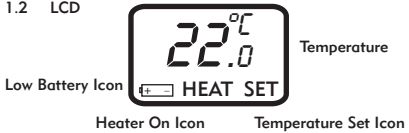
1.1 Outlook

1.2 LCD



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1.3 Features

Several useful functions and operating modes have been incorporated to adapt a variety of customer needs.

- LCD shows the "NEED TO KNOW" information only, which is more easy to understand
- Room Temperature Display
- Simplified Temperature Adjustment
- Heater Operation Mode
- 2 x AAA Size Alkaline Batteries (not included)
- Low Battery Indicator
- On/Off Switch
- Slim Housing Design

2 INSTALLATION

CAUTION:

1. The appliance can only be mounted on dry indoor places.

2. A suitable fuse with a rating not exceeding 5A, should be in the power line.
3. Observe the national regulation for the wiring.
4. Qualified electrician is recommended for installation and servicing.

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This thermostat has been designed for simple and quick installation requiring only a few tools.

2.1 Required Material

Hammer
Masking tape
Drill and 3/16" drill bit
Screwdriver

2.2 Removing your old thermostat

CAUTION: To avoid electric shock, turn off the power of the heating system at the main power box in your home. Read the following instructions carefully before disconnecting the wires.

1. Turn off the old thermostat.
2. Remove the cover from the old thermostat.
3. Unscrew the old thermostat from the wall plate.
4. Find and remove the screws attaching the wall plate to the wall. Pull the wall plate a small distance from the wall. Do not disconnect any wire yet, simply locate the wires.

Warning: After removing the wall plate, if you find that it is mounted on a junction box (e.g. a box similar to one behind a light switch or electric outlet), high voltage circuit may be present and there is a danger of electric shock. Please consult a qualified electrician.

2.3 Wire Labeling

1. Disconnect and identify each wire.
2. Tape the wires to the wall to keep them from slipping through the hole in the wall. If the hole in the wall is larger than necessary, fill it in order to prevent hot or cold air to penetrate the thermostat. In this manner, the thermostat will function perfectly.

2.4 Choosing a Location

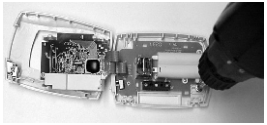
For a new installation, choose a mounting location:
1. About 5 feet (1.5 meter) above the floor in an area with good air circulation.
2. Away from:
i. Drafts of dead air sports
ii. Air ducts
iii. Radiant heat from the sun or appliances
iv. Concealed pipes and chimneys
3. The best viewing angle is 12 o'clock direction.

2.5 Mounting

1. Mounting the thermostat onto the wall.
2. Remove completely the front housing of the thermostat by loosening the screws at the bottom.(see picture)
3. Mark the holes' position and align the wire coming from the wall in the hole beside the connectors.(see picture)
4. Drill two holes and insert the plastic anchors carefully into the holes until they are flush with the wall.
5. Fasten securely the thermostat to the wall with the two screws.

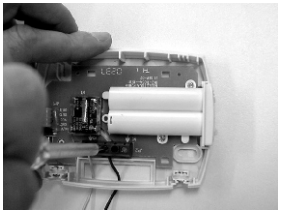
2.6 Connecting the Wires

1. Connect the system wires to the terminals according to the wiring diagram shown in the section 2.7 "WIRING DIAGRAM".



2.7 Wiring Diagram

The KT50 thermostat can be used with single stage heating system.
Inside the thermostat, three terminals which label COM(common), NC(normal close) and NO(normal open) would be found. In most case, COM and NO are used.



2.8 Battery Installation

The KT50 is operated by two AAA 1.5V Alkaline batteries. Please follow the installation instruction

1. Find out the battery door at the side of the case.

2. Slide the door downward to open it.
3. Two old batteries would “jump out”.
4. Take out the old batteries.
5. Insert two batteries in right position as shown. Ensure the polarity of the batteries are in right position.
6. Push and slide the door up to close it.If first use, skips the instruction (3) and (4).

2.9 Temperature Span

Span is the temperature difference between the turn ON and OFF temperature.

The factory pre-set spanis +/- 0.5ºC. For example, control temperature setting is 20ºC. The heater will be operated when the roomtemperature drops to 19.5ºC and will be turned off when the temperature rises to 20.5ºC.

2.10 Temperature Measurement

'HI' will be shown when temperature is above 40ºC and 'LO' will be shown when temperature falls below 0ºC.

2.11 Power Installation

The thermostat is operated by two AAA 1.5V Alkaline batteries.

To power-up the unit, install the batteries as shown in above section "Battery Installation" and slide the ON/OFF switch to ON position.

When power is supplied for the first time or reset button is pressed, the display will show as follows:

TEMPERATURE	22°C
CONTROL TEMPERATURE	20°C
OUTPUT	OFF

If the display is different as shown, use a fine probe such as straightened paper clip to gently push the reset button.

3 CONTROL TEMPERATURE

At the normal operation mode, the temperature could be set.

1. Push ▲/▼ button to view the setting temperature which was set last time.
2. When power up or reset, the factory preset control temperature 20ºC is shown.

3. Hold ▲/▼ button about 3 seconds and the temperature indicator will flash one time.
4. Push ▲/▼ button to increase or decrease the temperature setting.
5. Hold ▲/▼button to fast advances the adjustment rate.
6. The unit will be back to normal operation mode automatically when no button is pressed about 10 seconds.
7. Program temperature can only be set in the control temperature range from 5ºC to 35ºC, not wrap around at two ends.
8. When pushing the ▲ button to increase the temperature to 35ºC, it is no further increment.

Likewise, when pushing ▼button to decrease the temperature to 5ºC, it is no further decrement.

4 LOW BATTERY OPERATION

When the voltage of the battery decrease to certain level, the LCD will be blank. In this case, the batteries should be changed as soon as possible to avoid any data loss.

5 HEATER OPERATION

5.1 Heater On Operation

The heater will be turned on when the room temperature is lower than the programmed temperature and the Heater On Icon will be displayed as shown.

5.2 Output-On Delay

For safety purposes, the thermostat has an auto 20 seconds' delay for heater to restart.

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6 SPECIFICATIONS

6.1 hysical Characteristics

Size:	98(W)X 28(L)X 73(H) mm
Material:	Polycarbonate (PC)
Weight:	98g (battery not included)

6.2 Electrical Characteristics

Power Source:	AAA 1.5V Alkaline battery x 2
Switching Relay:	
Resistive load:	5A at 250VAC
Inductive load:	3A at 250VAC

Temperature Measurement:	0 - 40ºC
Temperature Accuracy:	+/- 1.0ºC
Temperature Control:	5 - 35ºC
Temperature Control Span:	+/- 0.5ºC
Output On Delay:	20 seconds
Operating Temperature:	-10ºC to 50ºC (non-condensing)
Storage Temperature:	-30ºC to 60ºC
Operating polluted condition:	Normal

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