

ELEKTRA ELR20 Instruction Manual

LCD Digital Temperature Controller allows users to select operation mode between manual and energy-saving control. It can be applied to electric heating control.

Model	Max. load	Control Method
ELR20	16A	Controlled by two sensors. Temperature control and limitation.

Characteristics

- >Simple and fast installation
- >LCD display with a big screen
- >Low energy consumption
- >Weekly programming
- >Quick temperature setting
- >Open Window - detection of sudden temperature drop

Technical Data

Voltage: AC230V 50Hz

Standby power consumption: < 1W

Terminal Blocks: One terminal can be connected to
2 x 1.5mm² or 1 x 2.5mm² wire at most

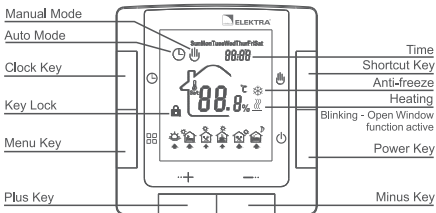
Temperature Range: 5 + 90°C

Limit Temperature Range: 16 + 60°C

Ambient Temperature Range: -10 + 55°C

Protection Class: IP20

Display Interface and User Settings



1. ON/OFF
Press key to switch ON/OFF.
2. Temperature setting
Press key to increase the value and press key to decrease the value.
3. Operation mode selection
Press key to switch between Manual and Auto mode.
4. Quick setting function
Press key to quickly set the temperature. If the controller is currently in the Auto mode, it enters the Temporary mode.
5. Auto mode programming
Hold key for at least 5s to enter programming menu.
6. Time setting function
Hold key to adjust time and day of the week.
7. Lock key
Hold key and for 5 seconds to lock the controller. Use the same method to unlock the device.
8. Open Window
When active, the controller detects open window and suspends heating for the time of 30 minutes. To deactivate this function, press the and buttons simultaneously.

Advanced Settings

These settings should be applied by authorized installers. The settings are usually completed at the initial installation. Press keys \odot , \boxplus and \updownarrow together when the controller is switched off. Holding them and pressing key \odot to enter Advanced Settings. Press key \boxplus to switch between menus. Press key \odot to exit current operating mode.

No.	Symbol	Function	Adjust by key + or –
1	$\overline{1R} \overline{d} \overline{1}$	Temperature calibration	Temperature adjustment
2	$\overline{25} \overline{E} \overline{N}$	Sensor mode selection	IN: air (Default), OUT: floor, ALL: thermostat is controlled by the built-in air sensor but limited by the floor sensor
3	$\overline{3L} \overline{r} \overline{f}$	Floor temperature limitation setting	$16 + 60^{\circ}\text{C}$
4	$\overline{4d} \overline{r} \overline{f}$	Difference/Hysteresis	$0.5 + 10^{\circ}\text{C}$
5	$\overline{5L} \overline{r} \overline{P}$	Anti-freeze function ON/OFF When the controller is OFF	The setting range for switching on is $5 + 10^{\circ}\text{C}$
6	$\overline{6H} \overline{r} \overline{f}$	Set the upper limit for temperature	The setting range is $16 + 90^{\circ}\text{C}$
7	$\overline{7P} \overline{r} \overline{G}$	Weekend days selection and weekly programming OFF	Single day off, two days off, no weekend and close weekly program
8	$\overline{8F} \overline{r} \overline{f}$	Quick temperature setting value	Maximum value: the highest set temperature; Minimum value: 5°C
9	$\overline{9P} \overline{o} \overline{f}$	ON/OFF status selection	ON: Controller maintains the same status when power is off and on again OFF: Controller is in switched-off status when power is off and on again (Default)
10	$\overline{10} \overline{AO} \overline{P} \overline{N}$	Open Window detection (sudden temperature drop)	$1 - 5^{\circ}\text{C}$ sensitivity adjustment OFF: function inactive
11	$\overline{11} \overline{b} \overline{F} \overline{A} \overline{C}$	Restore to factory settings	Hold key + for 5 seconds

Operating Mode Introduction

Manual Mode

Operating according to the manually set temperature. Completely out of time programming mode control.

Auto Mode




Weekly programming. You can set 6 events and corresponding temperature for every day in auto mode. Events, temperature, weekend days can be programmed upon the customers' request.











Temporary Mode

The controller is temporarily out of Auto mode control and switched to Manual mode control status. Automatically restore to Auto mode when the next event comes.

Sensor Malfunction: ER1 display symbol means the built-in air sensor malfunction, ER0-floor sensor malfunction.

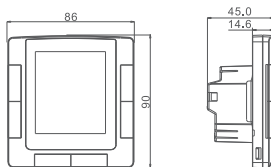
Event Programming

Hold key  for at least 5 seconds to enter the programming mode. Press key  to confirm and switch between menus. Press key  to exit current operating mode.

Option	Event	Symbol	Default Time	Change	Default Temperature	Change	
 	Work Days	1		06:00	+ - Change event time	20°C	+ - Change temperature
		2		08:00		15°C	
		3		11:30		15°C	
		4		12:30		15°C	
		5		17:00		22°C	
		6		22:00		15°C	
	Weekend	1		08:00		22°C	
		2		22:00		15°C	

External Dimensions

Unit: mm

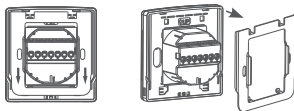


Installation Diagram

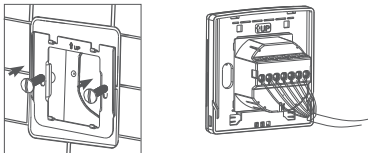
- 1 Put a flat-blade screwdriver into the two slots on the both sides of the controller then slide out the plugs.



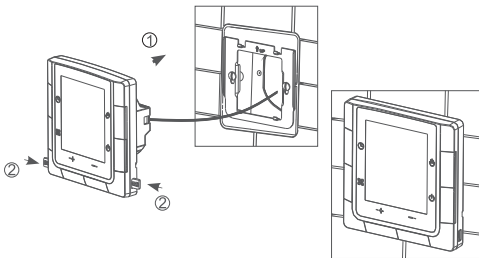
- 2 Remove the metal bracket on the back of the controller by slightly pushing down.



- 3 Fix the metal bracket to the installation box with screws then connectwires correctly according to the wiring diagram.



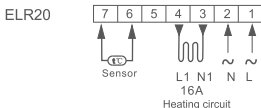
- 4 Slide the controller into the metal bracket after the wiring is completed. Push the two plugs back in to finish the installation.



Installation Notes

- > Power must be off during installation.
- > Please connect the wires correctly according to the wiring diagram.
- > Recommended installation height: 1.4m, or the same level as other wall switches.
- > Do not install the controller in a non-ventilated position. For example in the corner, behind the door.
- > Do not install controller in a place with strong airflow and near cold or heat source.
- > Prevent small elements or water from entering the temperature controller, as it would cause damage to the controller.

Wiring Connection Diagram



Note:

This controller can be used in full load operation in a place where the altitude is not higher than 2500m. For installations between 2500m and 4200m the max. external load should not exceed 80% of the rated power.

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