konveka

WIRED WALL CONTROLLER

Konveka TC86

Installation and user guide



COOL · HEAT · FAN · DRY · 7-DAY TIMER · RS485 · UP TO 32 UNITS

PRODUCT OVERVIEW

Konveka TC86 is a wired wall controller with an LCD screen and six keys. It sets the operating mode (cool, heat, fan, dry), the set temperature and the fan speed of the unit, and provides a 7-day on/off timer, sleep and swing functions and a key lock. Several units can be connected into a network via RS485: the master controller controls up to 32 slave units one by one or as a group.

MAIN FUNCTIONS

- Cool, heat, fan and dry modes
- Fan speed 1-5 / Auto or modulating 30-100 %
- Real time clock and 7-day on/off timer
- Sleep and swing functions, key lock
- Master-slave networking and group control via RS485
- Parameter browsing and error codes

ⓘ Before installation and operation, please read this manual carefully and make sure you can use this controller correctly.

TECHNICAL SPECIFICATIONS

Operating temperature	-20 to 60 °C
Relative humidity	25-90 % RH, non-condensing
Environment	No corrosive metal, gas or dust that could damage the insulation
Set temperature range	16-30 °C (SW1 = OFF)
Fan speed	1-2-3-4-5-Auto or 30-100 % (SW3)
Networking	RS485, unit addresses 1-32

DIP SWITCH SETTINGS

Switch	ON	OFF
SW1	Temperature setting is prohibited. The set temperature is fixed at 24 °C in cool mode and 21 °C in heat mode.	Temperature can be set in the range 16-30 °C.
SW2	The temperature display area shows the set temperature.	The temperature display area shows the room temperature.
SW3	Modulating fan speed setting (30-100 %).	Fixed fan speeds 1-2-3-4-5-Auto.

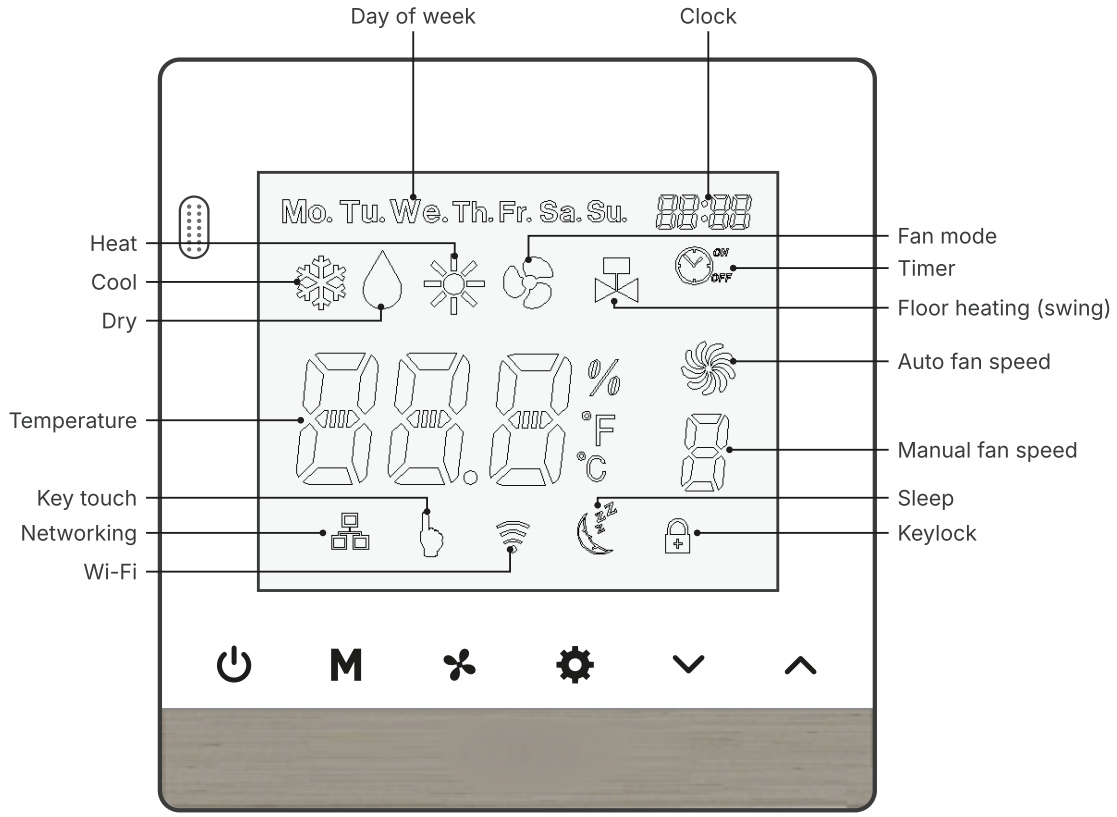
INSTALLATION



Warning! Strictly follow the wiring diagram provided in the specification. The manufacturer is not responsible for damage to the main PCB caused by incorrect wiring.

- When wiring, separate the power (high voltage) and signal (low voltage) cables and keep the control board and the contactor more than 50 mm apart to avoid electromagnetic interference.
- Do not immerse the controller sensor in water for a long time, as this may affect the accuracy of temperature sensing.
- Software writing and maintenance must be carried out only by the company's professionals according to the requirements of the specification.

CONTROLLER CONTROL



Key functions

On/Off	Mode	Fan	Set	Down	Up

Settings menu

Press ⚙ repeatedly to select the function. The function depends on the number of presses:

Presses ⚙	Function	Item
1	Clock setting	6
2	Timer setting	7
3	Sleep and swing	8
4	Networking control (single unit)	9
5	Group control	10
6	Parameter browsing	11
7	Networking address setting	12

1 System on/off

Press ⏻ to turn the unit on or off.

2 Mode

Press M to change the operating mode:

- **Cool-heat model:** cool - heat - fan - dry
- **Cool only model:** cool - fan - dry

3 Temperature setting

Press ⌄ or ⌃ to adjust the set temperature. The temperature display area flashes the set temperature. The controller exits the setting 6 seconds after the last key press. The setting range and the displayed temperature depend on DIP switches SW1 and SW2 (see "DIP switch settings").

4 Fan speed

SW3 = ON, modulating fan speed. Press ✣: the temperature display area shows the fan speed in % (30-100 %). Press ⌄ or ⌃ to adjust; the setting flashes. The controller exits 6 seconds after the last key press, or press ✣ to exit immediately.

SW3 = OFF, fixed fan speeds. Press ✣ to change the fan speed: 1-2-3-4-5-Auto (Auto adapts automatically to the 3 or 5 speed setting). The fan speed display area shows the selected speed.

5 Keylock

In the main screen, press M + ✣ to switch the keylock on or off. The keylock symbol lights up when the lock is on.

6 Clock setting and display

The clock area shows the real time; ":" blinks once a second. Press ⚙ once to enter the clock setting; ":" lights steadily. Press ⌄ or ⌃ to adjust the time, M to change the day of the week and ✣ to select hours or minutes. Press ⏻ to confirm and exit. Without a key press, the controller exits after 6 seconds without saving.

7 Timer setting

The controller supports a 7-day on/off timer. If the master unit is in group control mode, the timer turns all online slave units on or off; otherwise it applies only to the unit itself.

1. Press ⚙ twice. The timer symbol lights up and "ON" flashes.
2. Press M to select the day of the week (Monday-Sunday).
3. Press ✣ to switch between on-timer hour, on-timer minute, off-timer hour and off-timer minute. The selected value flashes; "ON" flashes for the on-timer and "OFF" for the off-timer.
4. Press ⌄ or ⌃ to set the time.
5. Press ⏻ to confirm and exit. Without a key press, the controller exits after 6 seconds without saving.

The timer symbol lights up if a timer is set for the current day; "ON" or "OFF" lights up according to the timer programmed for that day.

8 Sleep and swing

Press ⚙ three times to enter the sleep and swing setting; the keylock symbol flashes.

- Press M to switch the sleep function on or off; the sleep symbol lights up accordingly.
- Press ⌄ to switch the swing function on or off; swing is shown by the floor heating symbol.
- Press ⌃ to enable or disable the local room sensor: "∩" in the fan speed area means enabled, "F" means disabled.

Press ⏻ to confirm and exit. Without a key press, the controller exits after 6 seconds without saving.

9 Networking control

Only the master unit can control the online slave units. Press ⚙ four times; the Wi-Fi symbol lights up and the clock area flashes the number of the slave unit. Press ⌄ or ⌃ to select the slave unit (offline units are skipped). Press M to select the parameter and ✣ to change it:

Parameter	M presses	Change
Unit on/off (symbol flashes)	1	✣
Set temperature (temperature area flashes)	2	⌄⌃
Mode (current mode flashes)	3	✣
Fan speed (current speed flashes)	4	✣
Sleep (sleep flashes)	5	✣
Swing (swing flashes)	6	✣

Press ⏻ to confirm and exit. Without a key press, the controller exits after 6 seconds without saving. Master-slave communication runs via the RS485 port of the main board.

10 Group control

Press ⚙ five times; the Wi-Fi symbol flashes. Press ✣ to synchronize the real time clock of all online slave units. Press ⏻ to broadcast the master settings to all online slave units. The Wi-Fi symbol disappears after broadcasting; if a timer is programmed on the master unit, the symbol keeps flashing until the timer is executed.

11 Parameter browsing

Press ⚙ six times. The temperature area shows the value of the selected parameter. In the clock area the hours show the unit address and the minutes the parameter number (e.g. 2:03 = unit 2, parameter 3). Press M + ✣ to select the parameter, ⌄ or ⌃ to select the unit address and ⏻ to exit.

Clock area	Temperature area shows	Description
1:01	Room temperature	
1:02	Coil #1 temperature	
1:03	DIP switch setting	Modbus ID: 0x0-0x1F = unit address 1-32 (decimal), 0x20 = master unit
1:04	Coil #2 temperature	

12 Networking address setting

Press ⚙ seven times to enter the address setting. Press ⌄ or ⌃ to change the address (1-32).

13 Error codes

When a fault occurs, the hour area flashes the unit address and the minute area flashes the error code. If several faults occur at the same time, the error codes are shown in turn.

Description	Error code
Coil #2 sensor faulty	E2
Room sensor faulty	E3
Coil #1 sensor faulty	E4
Coil temperature too low	E5
Coil overheating protection	E6
Water pump faulty	E7

WARRANTY

The controller comes with a **24-month warranty**. If it breaks down either during the warranty period or afterwards, or if you have any uncertainties, please contact us:

Telephone number	Email
+370 677 06303	sales@konveka.lt
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