INSTALLATION MANUAL

MINITOUCH

(LCDTO-7710-LIGHTT)

Touch colour thermostat with temperature and humidity sensor

Remote control via mobile APP

www.termogea.com

General warnings

- Read carefully the warnings contained in this document as they provide important information regarding safe installation, use and maintenance.
- All operations must be carried out with care and in a workmanlike manner, in compliance with current workplace safety regulations.
- After removing the packaging, ensure the integrity and completeness of the contents. In case of non-compliance, contact the agency that sold the appliance.
- It is forbidden to modify the safety or regulation devices without the authorization and indications of the appliance manufacturer.
- It is forbidden to disperse and leave the packaging material within the reach of children as it can be a potential source of danger.
- Repair or maintenance interventions must be carried out by the Technical Assistance Service or by qualified personnel in accordance with the provisions of this booklet. Do not modify or tamper with the appliance as this may create dangerous situations and the manufacturer of the appliance will not be responsible for any damage caused.
- The manufacturer cannot be held responsible for any damage resulting from improper, erroneous or unreasonable use.

SUMMARY

INTRODUCTION

The Minitouch is a device for thermal control of a zone equipped with a color touch screen.
The Minitouch always shows temperature and humidity of the zone thanks to the sensors it mounts; it is possible to control a radiant system via the relay output or a fan coil via the 0-10V output. It is also possible to configure the Minitouch in “display only” mode, in this case the radiant or fan coil of the zone must be activated via a Compact IO relay module (CIOT).
The Minitouch can work stand-alone as a thermostat of a single zone via the touchscreen controls.
Alternatively, the Minitouch can work in a multi-zone system via one of the compact control units SCIOCENT, and SCIOCOMT, or via the programmable TSHT and TSTT control units.
When the Minitouch is used together with a Termogea control unit then it can also be controlled remotely via the “Termogea” APP.

The main functions are listed below.

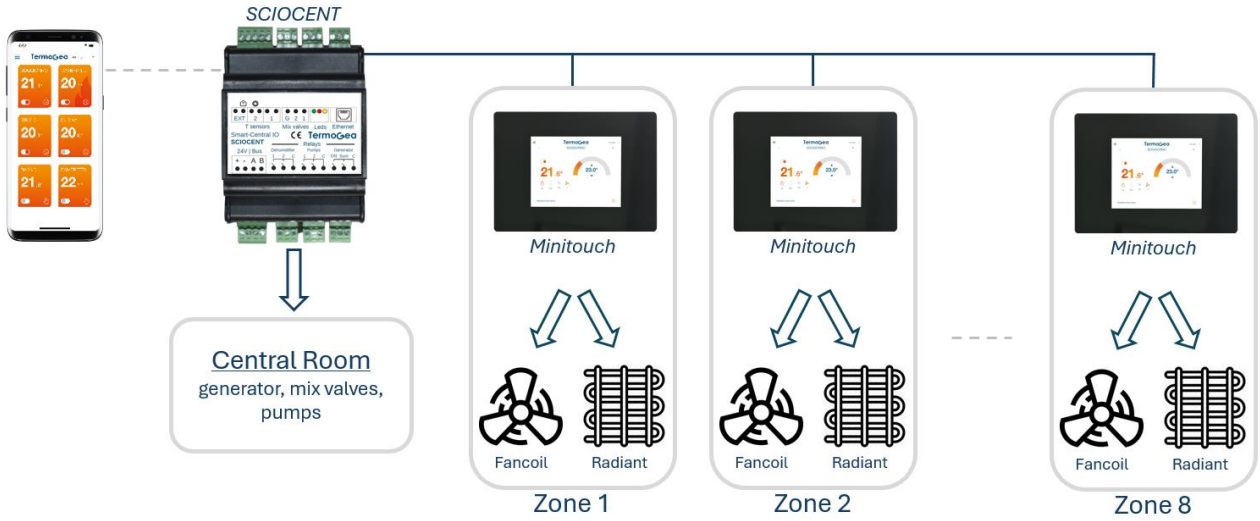
- Multi-zone functionality: when the Minitouch is used in a system with multiple zones, it is possible to display and change the values of the other zones from each terminal.
- Chronothermostat: when the thermostat is associated with a control unit, then it is possible to carry out weekly programming, up to 5 daily time slots.
- Manual and automatic mode: the thermostat has flexible and convenient manual and automatic operating modes that allow you to easily customize your heating and cooling preferences at any time.
- Child Lock Function: the wall thermostat uses a child lock function to prevent children from accidentally adjusting the temperature.
- LCD Color Screen: the LCD color screen and temperature and humidity sensors provide clear and accurate temperature and humidity readings for optimal room comfort control.
- “Window” function that turns off the heating/cooling of the area when the window is opened.
- “Presence” function that turns off the heating/cooling of the area when the absence of the guest in the area is detected.
- “Bypass” function that allows the water of the system to avoid passing through the fan coil when the fan coil is inactive (energy saving).
- “Minimum Probe” function that allows the fan coil to turn on the fan only when the water passing through it has reached the preset temperature threshold (greater comfort).

VERSIONS AND PRODUCT CODES

Product name	Product code	Description
MINITOUCH	LCDTO-7710-LIGHTT	Touch thermostat with integrated sensor for detecting temperature and humidity.

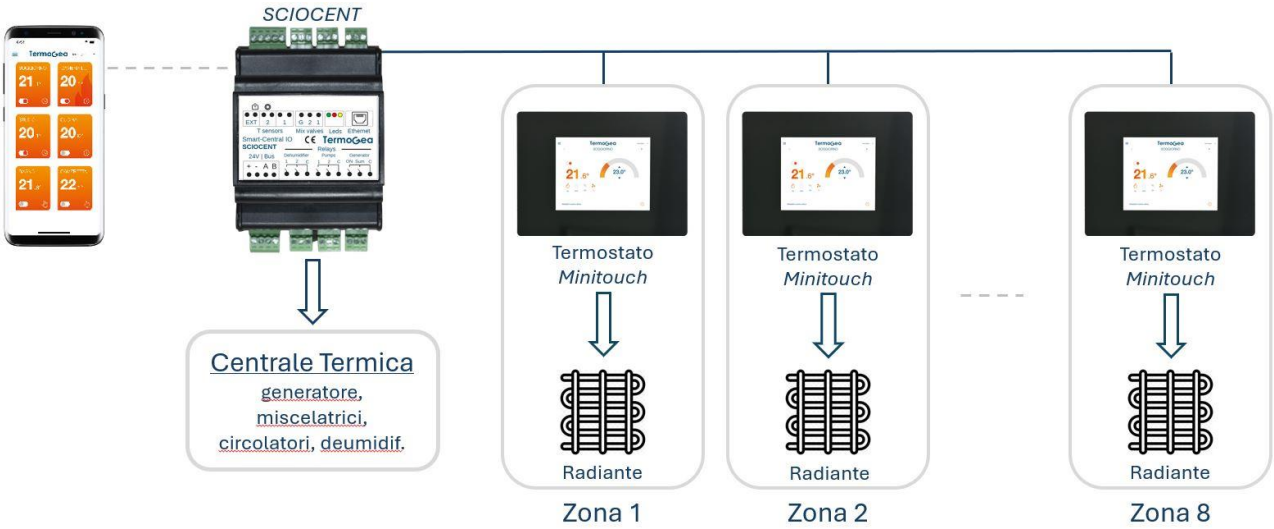
RADIANT AND FAN COIL CONTROL WITH COMPACT CONTROL UNIT

With this type of installation, the radiant heating and the fan coils (0-10V) in cold are controlled in each zone, via the outputs on board the MINITOUCH thermostat which also provides the room temperature measurement. In particular, the Minitouch relay output is used for the radiant heating head, while the other 0-10V output is used for the fan coil. It is possible to control up to 8 zones independently.



RADIANT CONTROL WITH COMPACT CONTROL UNIT

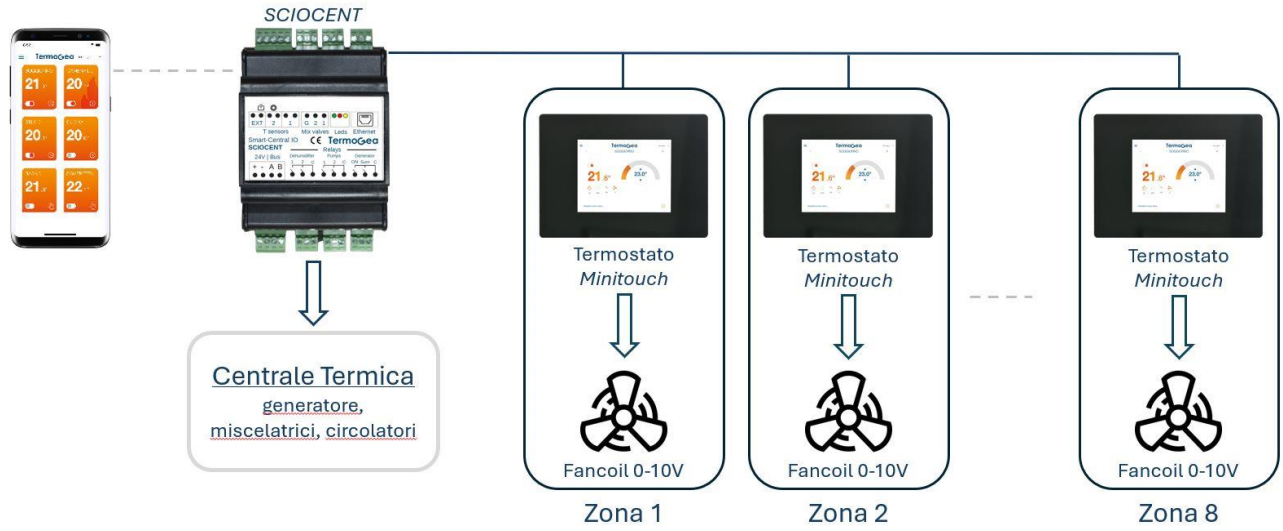
With this type of installation, the radiant heating and cooling in each zone is controlled via the relay output on board the MINITOUCH terminal which also provides the room temperature/humidity measurement.



Even with this type of installation, both temperature and humidity are controlled in each area, thanks to the humidity probe on the T/H/R module and the outputs for the dehumidifier of the SCIOCENT control unit.

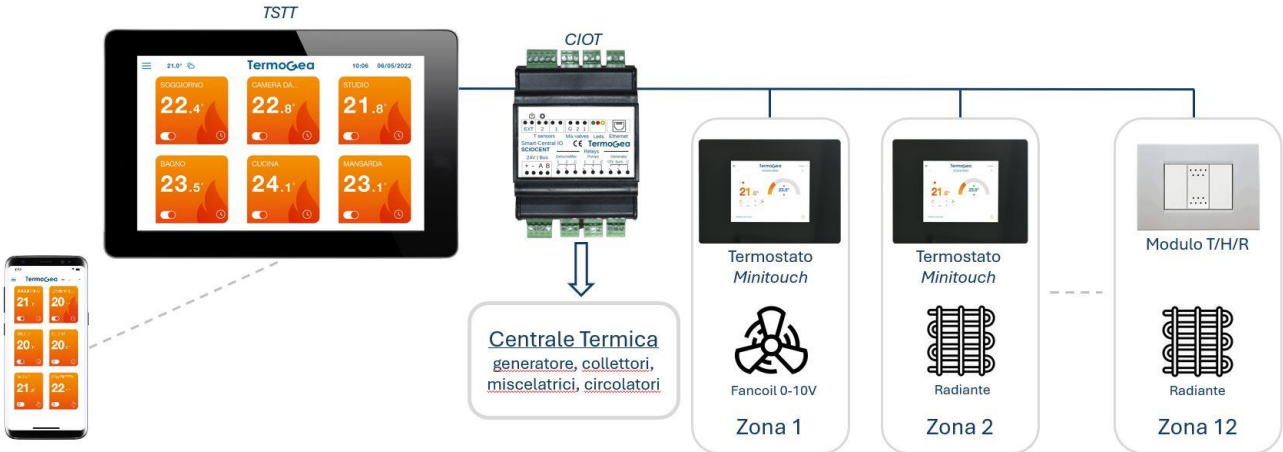
0-10V FANCOIL CONTROL WITH COMPACT CONTROL UNIT

With this type of installation, the fan coils (0-10V) of each zone are controlled, in hot and cold, via the outputs on board the MINITOUCH thermostat which also provides the measurement of room temperature and humidity.



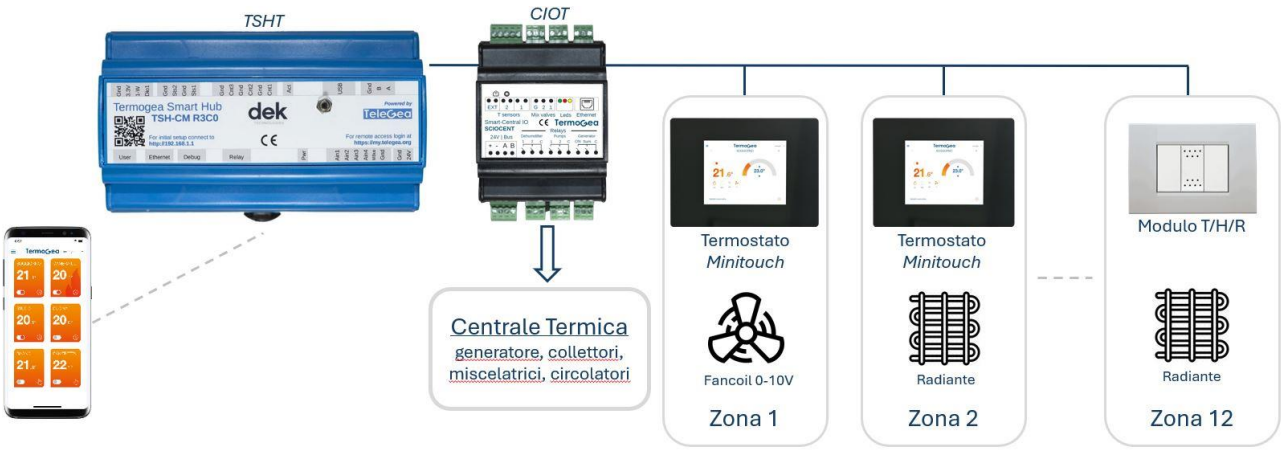
ZONE CONTROL WITH 7” TOUCH-DISPLAY CONTROL UNIT (TSTT)

With this type of installation, the fan coils (0-10V) of each zone and the radiant heating and cooling are controlled via the outputs on board the CIOT module.



ZONE CONTROL WITH SMART-HUB CONTROL UNIT (TSHT)

With this type of installation, the fan coils (0-10V) of each zone and the radiant heating and cooling are controlled via the outputs on board the CIOT module.

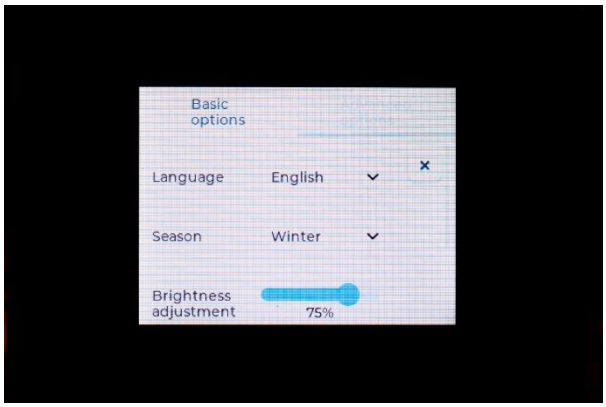


INITIAL CONFIGURATION

Before carrying out the automatic configuration procedure via SmartCIO, the installer will have to set some parameters of the MiniTouch via the advanced options menu reserved for operators:

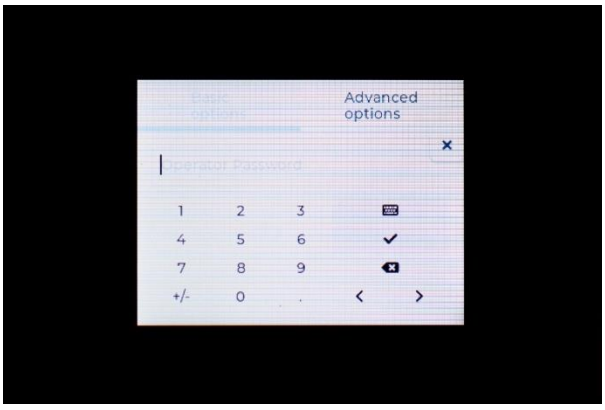
- Power on the Minitouch (24V)

- Access the settings menu via the icon at the top left of the screen

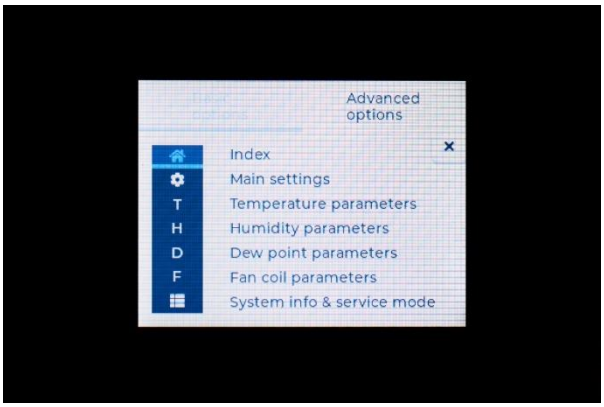


- Select Advanced settings menu

  To access the advanced settings menu, the operator will have to enter a numeric pin that will be provided to him:



- This brings you to the advanced settings screen reserved for operators

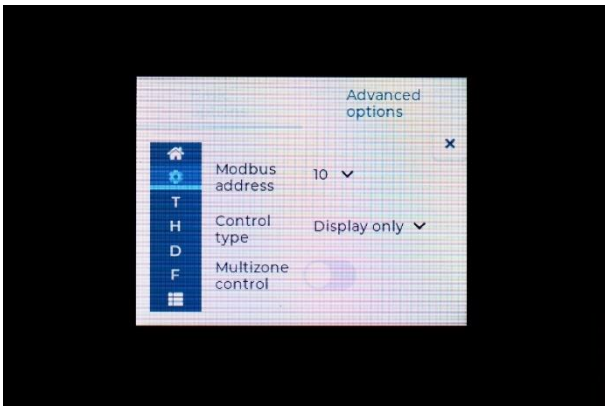


In the advanced settings screen, the operator can do the following:

1. Choose the modbus address of the device
2. Select the type of control
3. Enable multi-zone control (optional)

CHOOSE THE MODBUS ADDRESS

For the Modbus address of the MiniTouch, a value from 1 to 16 can be selected.



Via the Modbus address, the association with a zone (from 1 to 8) and a hydraulic circuit (1 or 2) can be chosen. The association between the device's Modbus address and the zone number is as follows:

Zone	Modbus Address (hydraulic circuit 1)	Modbus Address (hydraulic circuit 2)
1	1	9
2	2	10
3	3	11
4	4	12
5	5	13
6	6	14
7	7	15
8	8	16

For the installation type with a single hydraulic circuit and up to 4 zones, only the yellow zones are permitted.

CHOICE OF CONTROL TYPE

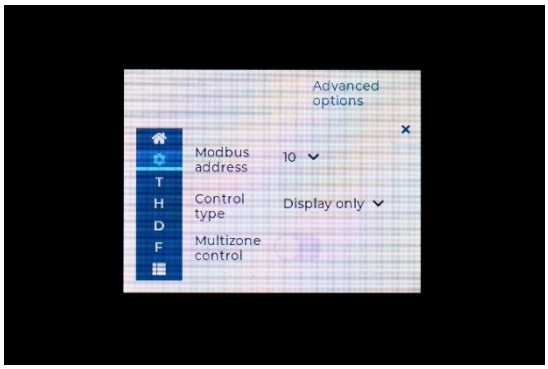
The choice of control type must be made via the dedicated drop-down menu in the advanced options screen. There are 5 options:

1. Radiant -> the MiniTouch controls the zone radiant via the relay mounted on the device
2. Fan coil -> The MiniTouch controls the local fan coil via the relay and the 0-10V output present on the device
3. Display only -> The zone radiator is controlled via a relay of the CompactIO associated with the zone
4. Bath radiant -> the MiniTouch controls the zone radiant via the relay mounted on the device, but it works in heating mode also in Summer
5. Display bathroom -> The zone radiator is controlled via a relay of the CompactIO associated with the zone, but it works in heating mode also in Summer

MULTI-ZONE CONTROL

If there are multiple zones in the system, it may be useful to enable multizone control, in this way it will be possible to view and control the other zones on the MiniTouch screen.

To activate multi-zone control you can use the dedicated switch in the advanced settings screen:



"PRESENCE" FUNCTION

The Minitouch has an "In1" input (clean contact) to be connected to a badge reader that indicates the presence or absence of a guest within the area.

The logical diagram is as follows:

Badge inserted	Open contact	Climate control ON
Badge not inserted	Closed contact	Climate control OFF

"WINDOW" FUNCTION

The Minitouch has an "In2" input (clean contact) to be connected to an external module that indicates the opening or closing of a window.

The logic diagram is as follows:

Window closed	Open contact	Climate control ON
Window open	Closed contact	Climate control OFF

"BYPASS" FUNCTION

The Minitouch has a "C/NO" relay output to be connected to a Bypass valve to prevent water from entering the fan coil when the area does not require hot water in winter or cold water in summer.

The logic diagram is as follows:

Active call from the zone	Open contact "C/NO"	BYPASS OFF	Water flowing into the fancoil
No active call from the zone	Closed contact "C/NO"	BYPASS ON	Water not flowing into the fancoil

“MINIMUM TEMP” FUNCTION

The Minitouch has a “PT” input for activating the fan coil only when the water temperature has reached the preset limit in both winter and summer. This input is connected to a PT1000 probe supplied with the Termogea system for measuring the temperature of the water entering the fan coil.

In this way, greater comfort is achieved, avoiding switching on the fan coil in winter when the water is still too cold, or in summer when the water is still too hot.

In summer, the default value of the MAXIMUM CONSENT TEMPERATURE (Tmax-fan) is +10°.

In winter, the default value of the MINIMUM CONSENT TEMPERATURE (Tmin-fan) is +40°.

These two parameters can be changed from the Minitouch display via the menu:

“Advanced settings/fan coil parameters/”.

The logical scheme is as follows:

ESTATE	$T_{ambiente} > T_{max\text{-}fan}$	Ventola fancoil OFF
ESTATE	$T_{ambiente} < T_{max\text{-}fan}$	Ventola fancoil ON
INVERNO	$T_{ambiente} < T_{min\text{-}fan}$	Ventola fancoil OFF
INVERNO	$T_{ambiente} > T_{min\text{-}fan}$	Ventola fancoil ON

CONNECTIONS

Upper and lower terminal block connections are reported below.

UPPER TERMINAL BLOCK

Input/Output	Label	Description
1	In1	Badge control
2	In2	Window open alarm
3	GND	Ground for inputs 1/2
4	PT	PT1000 sensor
5	0-10V	0-10V Fan coil output
6	GND	Ground for input 4/ output 5

Note: the PT1000 sensors do not have polarity.

LOWER TERMINAL BLOCK

Input/Output	Label	Description
1	+24V	Power 24V +
2	GND	Ground
3	A	Modbus A (+)
4	B	Modbus B (-)
5	C/NO	Relay control for radiant (Common/Normally Open terminal)
6		

The bus line (Modbus RS485) must be of the linear “in-out” type. The cable to be used for the Modbus must be shielded with twisted connectors of the Belden 9841 type or equivalent.

WALL MOUNTING

The Minitouch termostat can be wall mounted on a standard rectangular 502 or 503 standard electrical box or on the standard EU Standard Wall Round Mounting Box.

TermoGea

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