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Technical instructions
for installation, use and maintenance
CSK-Touch digital room corrector



CSK-Touch

TU-CSK-T-09-2019-v1_16-ENG

Thank you for purchasing the product of Centrometal d.o.o.

Please read these technical manuals carefully so that you can use and adjust this control unit as easily as possible. Once you have read the manuals, place them in an appropriate place where you can easily find them if you need further information on the operation and use of control unit. Please make sure that the control unit is discontinued after the end of use to reduce the pollution of the environment.

INTRODUCTION

Digital room corrector **CSK-Touch**, with a 4.3" color touch screen, provides room temperature control and turning on / off of the heating circuit. In addition to measuring and correcting room temperature, this room corrector allows you to adjust the temperature of the Accumulation tank or Hydraulic crossover as well as to adjust the DHW temperature, if any, and to set Schedules of the heating circuit, DHW and boiler. By connecting multiple digital room correctors to the boiler, it is possible via one corrector to adjust the desired temperature at other correctors. **The digital room corrector connects to the PelTec boiler with a built-in CM-WiFi box and CM2K module wirelessly via wifi signal.**

With compact and elegant design, it fits perfectly into any space in your home.

CONTENT

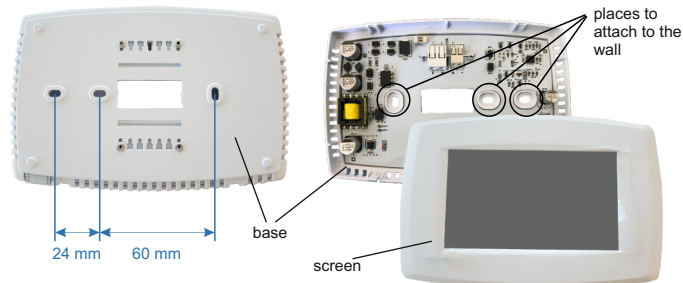
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CSK-TOUCH DIGITAL CORRECTOR INSTALLATION CONNECTING TO THE BOILER / CM2K MODULE THROUGH CM-WIFI BOX

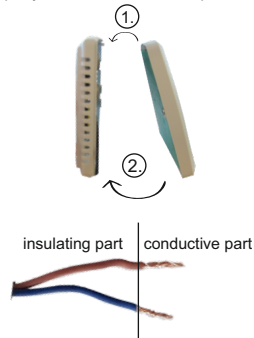


Be sure to turn off the power supply at the place of installation of the corrector!
Ensure an unobstructed wifi signal from the corrector to the CM-WiFi box!

At a height of about 130-160cm from the floor, never directly above the heat source or near the window. At the installation site, drill 2 holes at a distance according to the bottom sketch, diameter ϕ 6mm, depth 35-40mm. Insert dowels into the drilled holes.



Push the power wire through the hole at the base of the corrector and insert the wires into the power connector (locations F and N, left connector). Before inserting the wire, press the terminal block connector, insert the wire all the way down, and release the terminal block connector. Do the same for the other wire. Attach the connector base to the wall with screws. Attach the screen to the upper brackets and gently press the screen to the bottom of the corrector base. When the corrector is properly installed, the current up to the corrector can be turned on.



- ① Power connectors.
It is necessary to remove the insulating part of the wire and insert the conductor part into the connectors.
F - Phase
N - Zero
② A connector for wired connecting the module CM2K (currently unused)

3.4.4. Screensaver

After a certain screen idle time, the screen saver is turned on to reduce power consumption and extend the screen life. The screen saver works in two levels: after *Time 1*, the backlight intensity decreases, and after *Time 2* has elapsed, the measured room temperature of the selected view and the current clock will change on the screen. By tapping the screen, the screen saver turns off.

3.4.4.1. Backlight

The backlight intensity after *Time 1* has elapsed, ie when the screen saver turns on.

3.4.4.2. Time 1

Time that starts to run after the last touch on the screen (after which the screen saver is turned on).

3.4.4.3. Time 2

Time that begins to flow after *Time 1* has passed (in *Time 2* the *Backlight* intensity decreases and after that time, only the current room temperature / current clock starts to appear on the screen

Factory:		min./max.	uni.
Backlight	20	5 / 50	%
Time 1	60	10 / 600	sec
Time 2	10	0 / 720	min

3.5. Sound

3.5.1. Sound volume

Adjusting one of three preset volume levels or muting completely when a button is displayed on the screen and when an error / warning occurs.

Factory:		setting
Sound volume	3	OFF / 1/2/3

3.5.2. Sound type

Select one of ten sound types offered when you press the screen or an error / warning occurs

Factory:		setting
Sound type	Type 6	Type 1...Tip 10

3.6. Info

Information on the version of the software entered in the corrector..

3.7. Shutdown

The Digital Room Concealer is intended for year-round use, ie room temperature measurement. If you want to turn off the corrector completely (because it will not be used or want to save electricity when we do not intend to use corrector), pressing the OK button will completely off the corrector. When you want to restart the room corrector, you need to press the screen for a few seconds until a beep sounds and the corrector lights up and starts working on the last view before shutting down.

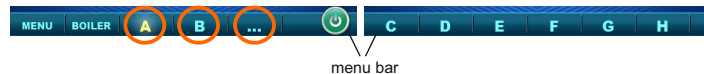
3.8. Load factory

Load the factory settings of the room corrector. After that, the room concealer must be reconfigured.

Settings

3.2. Views

In the *Views* menu, you can define the number of views or correctors that can be monitored on this digital corrector and define the name of each view and assign it a heating circuit that it controls. On the main screen, depending on the number of views selected, the letters of the view appear in the menu bar (from A to H, user-assigned names are only visible on the selected screen, not in the menu bar). If there are more than 2 views, the other views are selected by pressing the "..." menu (three dots) followed by the other selected views. After clicking on one of the desired views, the menu bar returns to the possible selection of the first 2 views.



3.2.1. No. of views

Selects the number of views or associated room correctors that can be controlled via this digital corrector. If only this digital corrector exists, the number 1 must be selected

Factory:		min./max.
No. of views	1	1 / 8

3.2.x. View A/B/C/D/E/F/G/H

3.2.x.1. View Name

Each view can have a name according to the user's wishes (eg Living Room, Ground floor ...).

3.2.x.2. Heating circuit

Each view must be assigned a heating circuit which is controlled by this view (usually each corrector controls its own heating circuit).

Factory:		min./max.
Heating circuit	0	0 / 255

3.3. Measurement corr.

If the measured temperature on the digital corrector deviates from the actual room temperature, in this menu the measured temperature on the digital corrector screen can be corrected.

Factory:		min./max.
Measurement corr.	0	-5.0 / 5.0 °C

3.4. Display

Menu for changing the settings of the digital corrector screen.

3.4.1. Background

Selects the background image of the screen that will be displayed in the normal operation of the corrector.

Factory:		min./max.
Background	1	1 / 6

3.4.2. Backlight

The intensity of the backlight when the corrector is in normal operation or when the settings are changed.

Backlight	100	30 / 100 %
-----------	-----	------------

3.4.3. Weather forecast

If the CM-WiFi box is connected to the Internet, there is below the measured room temperature a weather forecast for the place where the CM-WiFi box with the currently read temperature from the server (with the date and hour of reading the current temperature and forecast) and the weather forecast for today appears and for the next four days (with a minimum and maximum daily temperature). If the CM WiFi box is not connected to the Internet, the current forecast will not be displayed on the screen. Then it is recommended to turn off the weather forecast and it will not longer be displayed on the screen.

Factory:		setting
Weather forecast	ON	OFF / ON



First turning on

FIRST TURNING ON

Before turn on the corrector for the first time, it is necessary to configure the heating circuit on the boiler / CM2K module to which the corrector will be connected. On the boiler control in the *Regulator* menu, in the selected heating circuit, in the *Corrector* menu, it is necessary to select *Digital corrector*, and in the menu *Addr. dig. corrector*, select the desired corrector address (the same must be selected on the corrector later). After starting the corrector for the first time, a menu will appear on the first screen to select the desired corrector language. The desired language of the corrector doesn't have to be the same as the language of the boiler. To select the desired language for the corrector, press the flag of the desired language on the screen.



The screen must not be pressed (with your finger ...) when connecting the the room corrector to the el. power supply. If the screen of the corrector is pressed on arrival the el. power supply (the screen shows 'Firmware update'), the corrector enters the software insertion mode which can only be used by authorized serviceman. If the screen is accidentally pressed, it is necessary to turn off the power on the corrector and turn it on again without ever pressing the screen to get the corrector ready for operation.

After selecting the language on the first screen the indicator flashes that the corrector is not connected to the boiler. The corrector is adjusted in the menu *Menu* -> *Settings*. The menu 3.1.1. *Connection type* selects how the corrector will be connected to the boiler / CM2K module. If the corrector is connected via the CM-WiFi box (currently the only option), the correct WiFi ID from the menu *Info* on the boiler control must be entered in the corrector menu 3.1.2. *WiFi ID*.



The CSK-Touch room corrector can be connected to a CM-WiFi box with software version v.1.11 or later and a Peltec / -L boiler with software version v.2.86 or later.



If a specific corrector address is selected on the boiler control unit (if there is more than one digital corrector, selection of the address of each individual corrector is obligatory), the same address should be selected on the corrector in the menu 3.1.3. *Corrector address*.

The corrector can be connected to the boiler / CM2K either directly via the CM-WiFi box or through another digital corrector. If you want to connect the corrector directly to the boiler / CM2K, in the menu 3.1.4. *Destination address* you need to select a WiFi box, and if you want to connect the corrector to the boiler / CM2K via another corrector (in case the corrector cannot receive the CM-WiFi box signal), in the menu 3.1.4. *Destination address* it is necessary to select the address of another corrector to be connected.

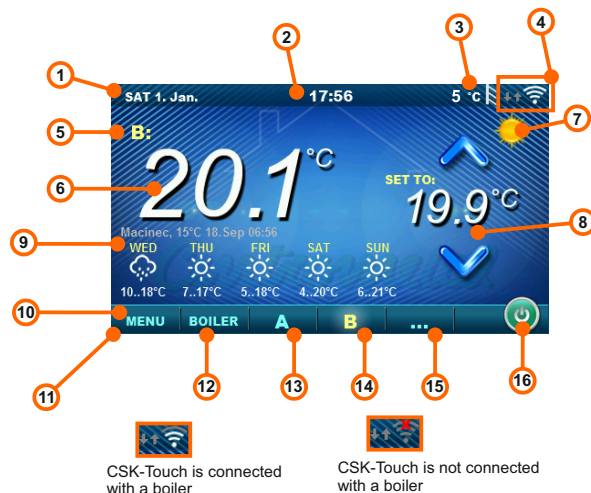
First turning on, main display

In the menu 3.2. *Views* it is necessary to assign each view of the corrector to a specific heating circuit and add a name to it as desired. If there is only one room corrector in the heating system, number 1 is selected in the menu 3.2.1 *Number of views*. If there are more room correctors (digital or analog) to be monitored on this corrector, the number of all correctors to be monitored should be selected in this menu. Depending on the number of views selected, the same number of buttons for editing the views (eg 3 views, *View A*, *View B* and *View C* buttons) appear in the menu 3.2 *Views*. In the menu 3.2.2. *View A* you can change the name of that view (factory A) to eg Floor 1 or Zone 1 or Circle 1 or Living Room ... (max. 30 characters) and a heating circuit must be selected to be joined by this corrector, 3.2.2.2. *Heating circuit*.

After the corrector connects to the boiler / CM2K (WiFi signal strength is white), it is necessary to download the data from the boiler control by pressing the START button in the menu 3.1.5. *Get data*

After adjusting these parameters, the corrector is ready for use..

MAIN DISPLAY



CSK-Touch is connected with a boiler

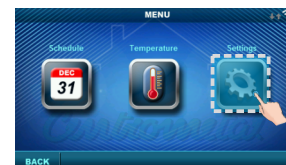
CSK-Touch is not connected with a boiler

Depending on the view selected (heating circuit), the current measured room temperature can be displayed on the screen, you can set the desired room temperature (correction of the set temperature on the boiler control) or switch off the heating circuit and see the weather forecast for several days in advance (if the boiler is connected to the Internet via the CM-WiFi box).

1. Date
2. Hour
3. Outside temperature (if there is an outdoor temp. sensor)
4. WiFi signal / data transfer
5. Name of heating view / circuit
6. Room temperature (depending on the selected view and the heating circuit, measured either on the current room corrector or other corrector.
7. Day / night heating mode
8. Desired / set room temperature
9. Weather forecast (internet connection required)
10. Menu
11. Menu bar
12. Boiler menu - data from boiler control
13. A - overview of the selected heating circuit
14. B - overview of the selected heating circuit
15. Button for other views if set
16. Turn OFF / turn ON of the selected heating circuit

Settings

3. SETTINGS



3.1. Connection

3.1.1. Connection type

Choose how to connect the room corrector to the boiler / CM2K. Currently enabled: Only connect via WiFi Tree.

Factory:	setting
Connection type	WIFI BOX Tree
	WIFI BOX Tree / Wired / Home router

3.1.2. WiFi ID

It is mandatory to enter the WiFi ID (unique number of the CM-WiFi box) - the number is displayed on the boiler control in the Information menu after connecting the CM WiFi box to the boiler.

3.1.3. Corrector address

The address selected on the boiler control must be the same as the one selected here. If there is one digital corrector the address does not have to be defined (but it can), if there is more than one digital corrector the address of each must be defined and the address of each digital corrector must be different.

Factory:	setting
Corrector address	Not defined
	Not defined / ADR 1/2/3/4/5/6/7/8

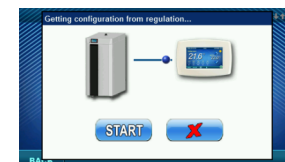
3.1.4. Destination address

One digital corrector must always be connected directly to the WiFi box (WiFi box destination address selected). If we have more than one digital corrector, other correctors can be connected to each other (eg when the signal from the WiFi box is too weak or missing) by selecting the destination address of the nearest neighboring digital corrector (destination address ADR1 / 2 ...).

Factory:	setting
Destination address	WIFI BOX
	WIFI BOX / >>>ADR 1/2/3/4/5/6/7/8

3.1.5. Get data

After configuring the room corrector or afterwards changing the language, it is necessary to download the configuration / error / setpoint data from the boiler controller in order to print the correct information on the digital corrector.



3.1.6. Language selection

When connecting a digital corrector for the first time, the digital corrector asks you to choose a language that will display information on the screen. After selecting the language for the first time, the language selection menu automatically shuts off. If you wish to change the language of the corrector later, you need to activate the language selection in the menu 3.1.6. *Language selection*, turn off the corrector 3.7. *Shutdown* and the language selection will appear on restart (long press on the screen). After selecting a new language, it is necessary to retrieve the data from the boiler control unit 3.1.5. *Get data*.

Factory:	setting
Language selection	ON
	OFF / ON

Temperature

2.1.2. Day room temp.

Selects the default daily room temperature.

2.1.3. Night room temp.

Selects the default night room temperature.

2.1.4. Heating curve

Adjustment of the coefficient (slope) of the heating curve of the selected heating circuit (dependence of the flow temperature on the outside temperature). Depending on the type of heating installed and the thermal insulation of the building, the slope of the heating curve must be adjusted - it is usually recommended for radiator heating curves from 1.0 to 4.0 and for underfloor heating from 0.1 to 0.9.

2.1.5. Correction coeff.

Determination of the coefficient of influence of the room corrector on the flow temperature. The higher this coefficient, the room corrector will have a greater influence on the calculated required flow temperature of the selected heating circuit.

2.x. Buffer tank

2.x.1. Buffer tank temp.

Default buffer tank temperature (measured on the upper sensor).

2.x.2. Min buf. tank temp.

Default minimum buffer tank temperature (measured on the upper sensor) - when reached, the heating pumps behind the storage tank are switched off.

2.x.3. Diff. buf. tank temp.

Default differential to start warming up the buffer tank (measured on the upper sensor) (Tbuff-dTbuff).

2.x.4. Diff. stop buff. tank

Default differential to turn OFF warming up the AKU. tank (measured on the lower sensor) (Tbuff-dTbuff off).

2.x.1. Crossover temp.

Hydraulic crossover temperature setpoint.

2.x. DHW

2.x.1 DHW temp.

The default temperature of the DHW tank.

2.x.2 Differential of DHW

The default differential for starting the DHW tank to warm up (TDhw-dTDhw).

Factory:		min./max.
Day room temp.	20	5 / 30 °C
Night room temp.	20	5 / 30 °C
Heating curve	1.0	0.1 / 4.0
Correction coeff	1.0	0.1 / 5.0

Factory:		min./max.
Buffer tank temp.	80	40 / 85 °C
Min buf. tank temp.	20	5 / 66 °C
Diff. buf. tank temp	10	5 / 30 °C
Dif. stop buff. tank	5	3 / 30 °C

Factory:		min./max.
Crossover temp.	80	75 / 85 °C

Factory:		min./max.
DHW temp.	50	40 / 80 °C

Factory:		min./max.
Differential of DHW	5	4 / 40 °C

Boiler menu

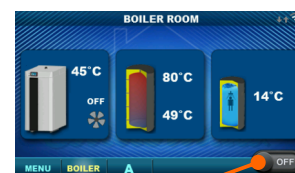
BOILER MENU

In the *Boiler* menu it is possible to monitor the operation of the boiler and the temperature of the existing configuration, start and stop the boiler and check all faults / warnings that have occurred on the boiler control. The display shows the current phase of operation of the boiler with the symbols of flame and fan operation as well as the boiler temperature and, depending on the existing configuration, the current temperature in the accumulation tank or hydraulic crossover and DHW tank (if any). By pressing the ON / OFF button, the boiler can be switched on / off.

If a warning or an error occurs on the boiler control, a warning / error message is also displayed on the corrector screen. Pressing the OK button on the error / warning screen of the corrector will reduce the error / warning and remain recorded through the (Boiler) menu and the error / warning menu can be read again.

Configuration:

Boiler + Buffer tank + DHW



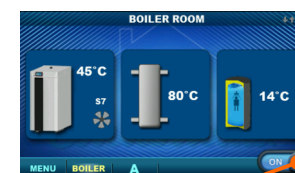
Boiler ON/OFF
(position when boiler is switched off)



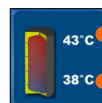
Boiler temperature

Boiler operating phase / has / no flame / boiler fan operation

Boiler + Crossover + DHW



Boiler ON/OFF
(position when boiler is on)



Buffer tank temperature (up)
If an buffer tank is selected in the boiler configuration

Buffer tank temperature (down)
If an buffer tank is selected in the boiler configuration



Crossover temperature
If a hydraulic crossover is selected in the boiler configuration



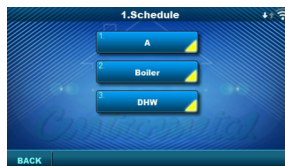
If the DHW tank does not exist in the boiler control system,
the DHW tank image will not be displayed

MENU

In this menu it is possible to set time schedule of all selected boiler heating and DHW circuits (if any), adjust the temperatures of the selected heating circuits as well as any temperatures that can be adjusted on the boiler control and adjust the room corrector settings.

1. SCHEDULE

In this menu it is possible to set the time schedule for each selected view (heating circuit), boiler and, if any, heating of the DHW tank. The time schedule can be switched off or selected from one of the tables with set time intervals of active and inactive function. Views and settings of existing time schedules vary depending on the configuration.

**1.1. View A****1.1.1. Day/Night Temp.**

Selecting the set room temperature mode -

Day temperature, Night temperature or Table selection. If the temperature mode is selected according to the Table, the times in the following Tables must be set (switching the temperature mode according to the specified time in each day). Only one Table can be active at the same time.

Factory:	setting	
Day/Night Temp.	Day/Night Temp.	Day / Night / Table 1/2

1.1.x. Table 1/2

Time table for day/night room temperatures. Green at the left edge of the table indicates the start of daytime temperature, red at the edge of the table indicates the start of nighttime temperature. It is possible to choose 3 times daily and 3 times night temperatures on any day of the week. The factory settings of the tables are: Every day from Monday to Sunday at 06:00 hours the daily temperature of the room starts and lasts until 22:00 when the night temperature begins, which lasts until the next day at 06:00. On the right side of the screen there are buttons to copy the desired day and paste it to another selected day (copy / paste).

1.X. Boiler**1.x.x. Schedule**

Choose when the boiler is active or not active on a particular day of the week - time schedules can be switched off or select one of 3 tables where boiler activity times can be set. Only one table can be active at a time.

Factory:	setting	
Schedule	OFF	OFF / Table 1/2/3

1.x.x. Table 1/2/3

Table for selecting the time when the boiler is active and when not. Green at the left edge of the table indicates the start of time from when the boiler is active for heating, and red at the edge of the Table indicates the start of time when the boiler is not active for heating. On each day of the week it is possible to select 3 times the active state of the boiler and 3 times the time when the boiler is not active for heating. The factory settings of the tables are: every day from Monday to Sunday from 06:00 hours the boiler is active for heating until 22:00 from when the boiler starts to be inactive until the next day at 06:00. On the right side of the screen there are buttons to copy the desired day and paste it to another selected day (copy / paste).

1.X. DHW**1.x.x. DHW schedule**

Selecting a time when DHW is active on a particular day of the week - time schedules can be switched off or on, and when switched on, the DHW heating activity times in the table must be set.

Factory:	setting	
DHW schedule	OFF	OFF / ON

1.x.x. Table

Table for selecting the time when DHW heating is active and when not.

Schedule - Table						
MON	TUE	WED	THU	FRI	SAT	SUN
06:00	06:00	06:00	06:00	06:00	06:00	06:00
22:00	22:00	22:00	22:00	22:00	22:00	22:00

Factory:	setting	
Table 1	06:00-22:00	mon/tue/wed/thu/fri/sat/sun

Table for selecting the time when DHW heating is active and when not. The green color on the left edge of the table indicates the start of time since DHW heating is active, and the red color on the edge of the table indicates the start of time when DHW heating is not active. On each day of the week it is possible to select 3 times the active DHW heating status and 3 times the time when the DHW heating is not active. The factory default settings for the table are: every day from Monday to Sunday from 06:00 hours DHW heating is active until 22:00 from when DHW heating starts to be inactive, until the next day at 06:00. On the right side of the screen there are buttons to copy the desired day and paste it to another selected day (copy / paste).

2. TEMPERATURE

Depending on the configuration selected on the boiler, certain menus appear in the menu 2.Temperature in which the set temperatures and differentiations (seen on the boiler control) can be changed:

Day / Night Temp. / Daily room temp. / Night room temp. / Heating curve / Correction coeff. / Buffer tank temp. / Min. buf. tank temp. / Diff. buf. tank temp. / Diff. stop buff. tank / Crossover temp. / DHW temp. / Differential of DHW

2.1. View A (see point 3.2.)**2.1.1. Day/Night Temp.**

Day Temperature: maintaining a set daily temperature all the time

Night temperature: maintaining a set night temperature all the time

Table 1/2: Maintain day / night temperature by set times for each day of the week of the selected table

Factory:	setting	
Day/Night Temp	Day Temp.	Day Temp. / Night / Table 1/2