Centrometal
HEATING TECHNIQUE

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Technical instructions for install and use of CMNET cascade manager

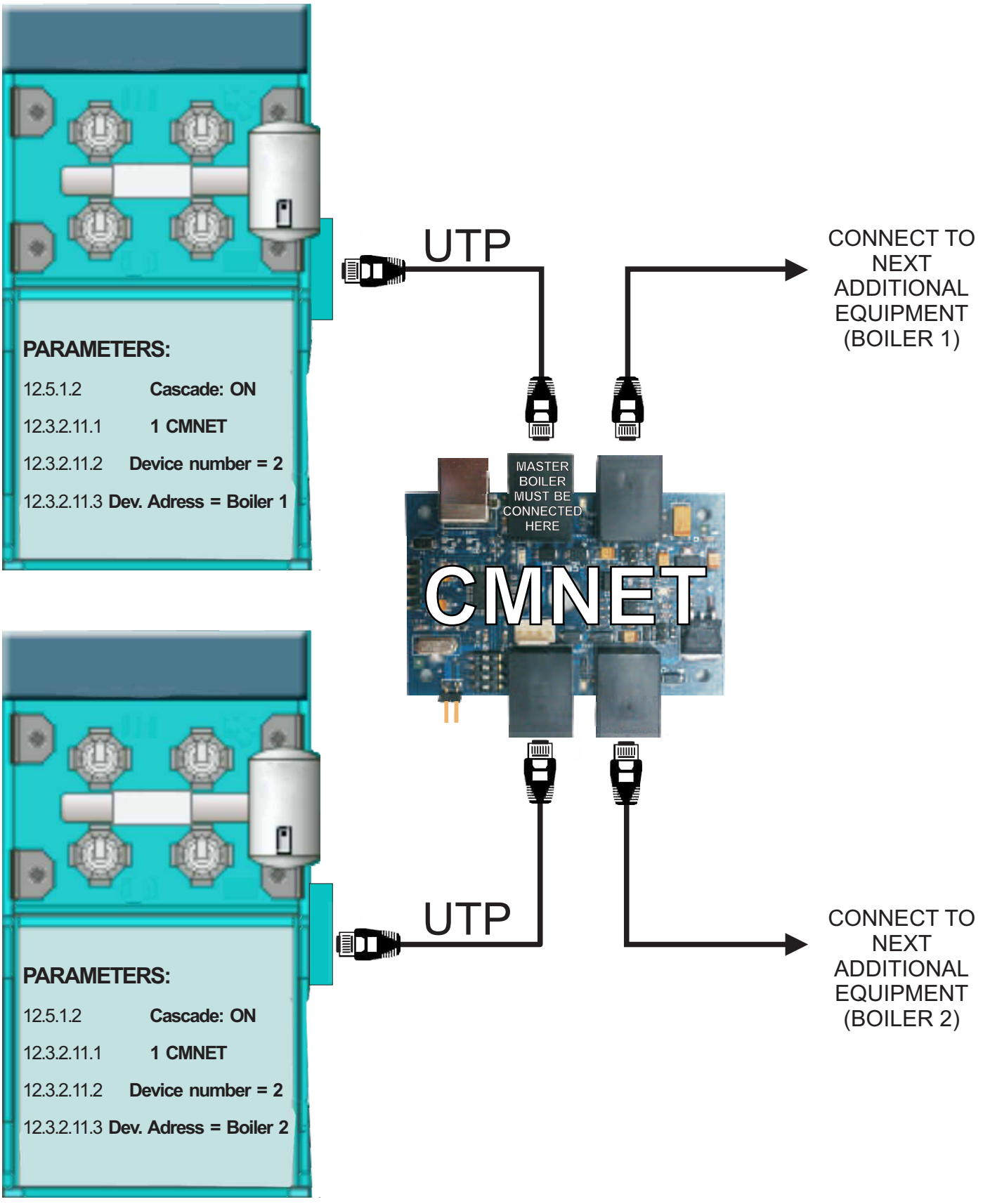
Technical instructions only for authorized servicers of hot water boiler EKO CKS P UNIT.

CE

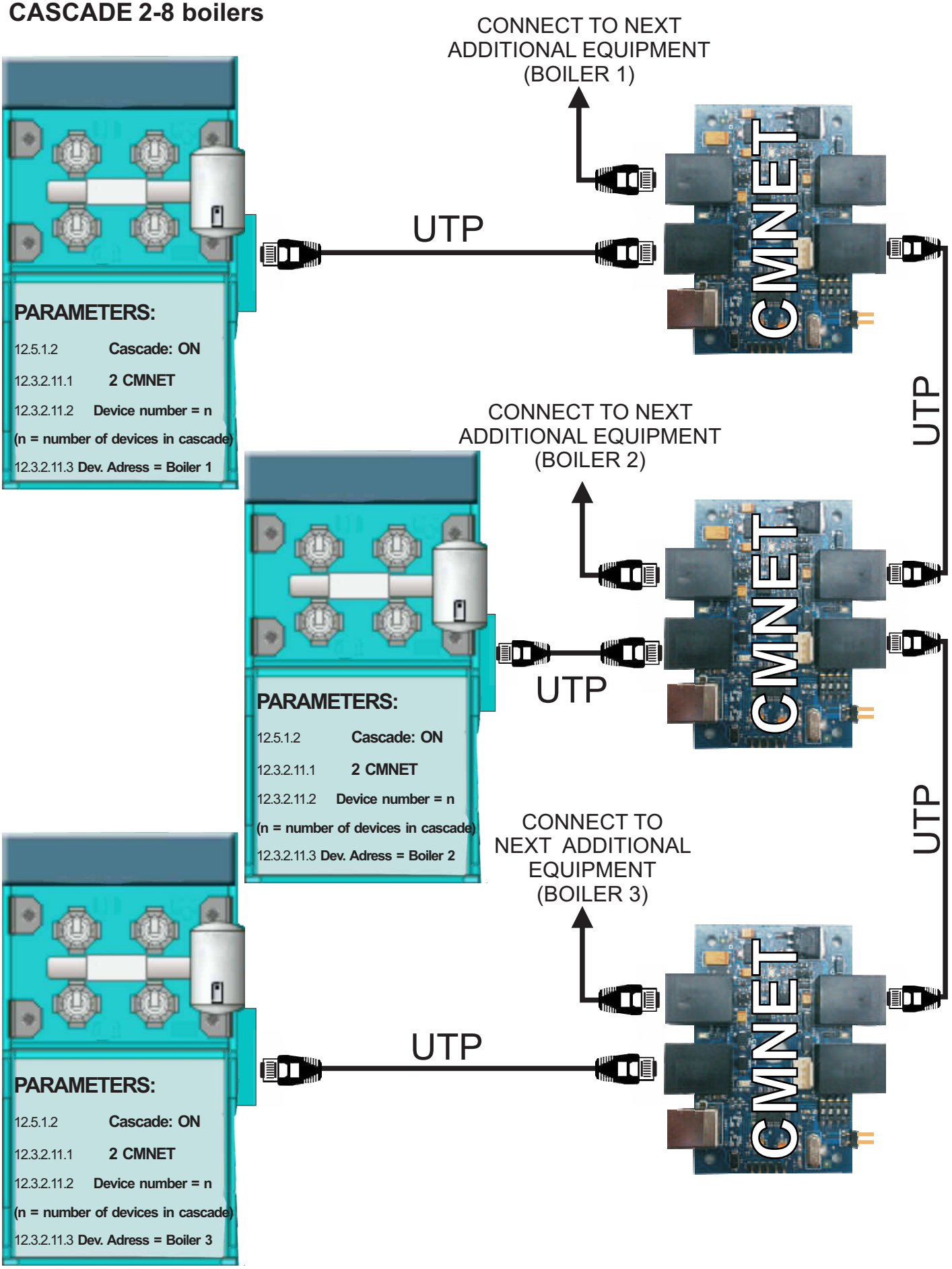
CMNET

TUCMNET-05-2017 - v1.07f

SCHEMES OF BOILER CASCADE CONNECTION



CASCADE 2-8 boilers



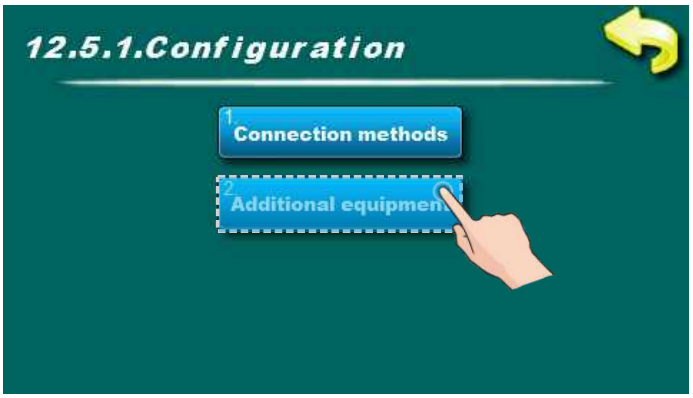
CASCADE OPERATION

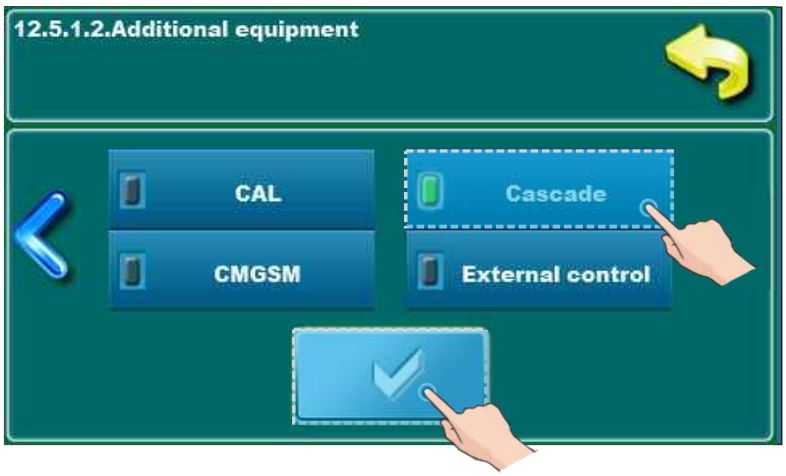
Boiler_1 is „Master” (boiler which operate with cascade work). If is boiler_1 turns out from cascade (or switch off on main switch (0/1), power outage on boiler) boiler_2 (next by the order number) automatic become „Master”. When boiler_1 become again part of cascade then it automatic become „Master” again.

Buffer tank / hydraulic crossover sensors must be connected to junction box of boiler_1 but if boiler_1 turns off from cascade additional sensors off buffer tank / hydraulic crossover must be connected to junction box of boiler_2.

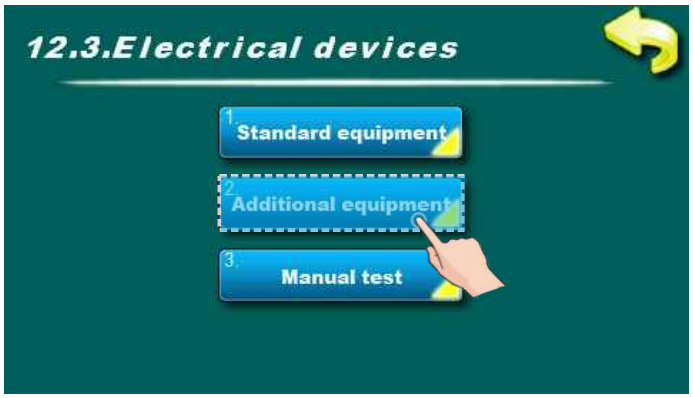
The same case applies to cascade parameters adjustment on boiler_2 where is also needed adjust all parameters like on boiler_1 for the reason that he could properly lead cascade in case that boiler_1 turns off from casade and boiler_2 become „Master”.

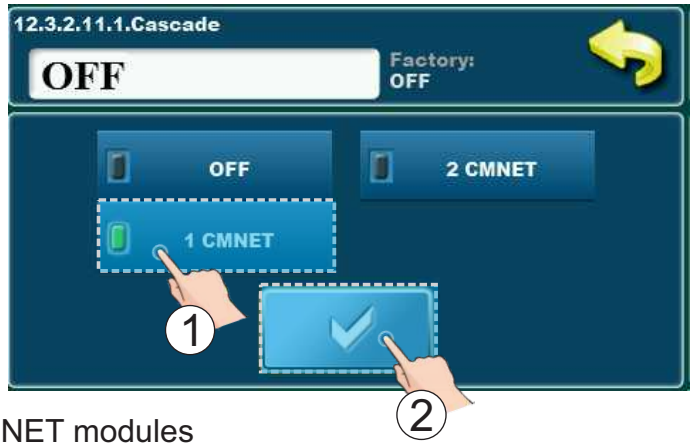
12.5.1.2 CASCADE ON





12.13.2.11 CASCADE (CMNET)





1 - select number of CMNET modules
2 - confirm selection by pressing „SELECT" button

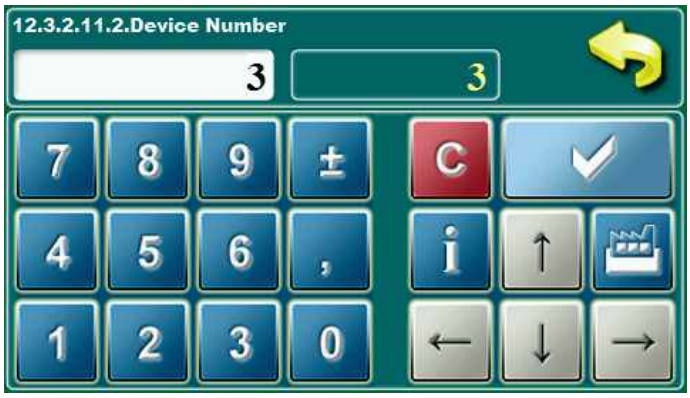
Factory settings: OFF
Possible selection: OFF, 1 CMNET, 2 CMNET

OFF: Cascade is not turned ON

1 CMNET: cascade 2 boilers -2 boilers in cascade with 1 CMNET device.

2 CMNET: cascade 2-8 boilers
- 2 boilers in cascade with 2 CMNET devices.
- 3 boilers in cascade with 3 CMNET devices.
- 4 boilers in cascade with 4 CMNET devices.
- 5 boilers in cascade with 5 CMNET devices.
- 6 boilers in cascade with 6 CMNET devices.
- 7 boilers in cascade with 7 CMNET devices.
- 8 boilers in cascade with 8 CMNET devices.

12.3.2.11.2 DEVICE (BOILER) NUMBER



Factory settings: 2
Possible selection: min. 2, max. 8

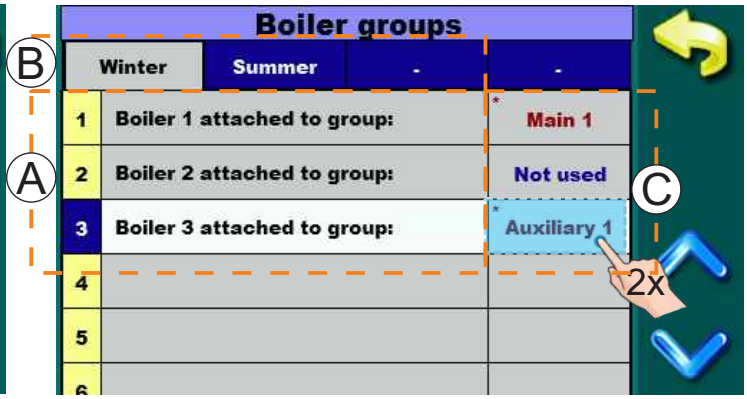
With this parameter we define number of devices in cascade. If is selected „1 CMNET" than number of devices must be 2. If is selected „2 CMNET" than number of devices must be as much as is devices in cascade (2-8). It adjust on each boiler separately and must be the same number.

12.3.2.11.3 DEVICE (BOILER) ADRESS

Factory settings: 1
Possible selection: min. 1, max. 8

This parameter define which boiler will be which in cascade. It is adjust in each boiler separately and each boiler must have different adress.

12.3.2.11.3 BOILER GROUPS



A - depend about number of boilers in cascade (device number, n)
B - possible selection of adjustment for Winter or Summer mod
C - boiler role in cascade work

By pressing on menu „C" on display will be opened menu for choice boiler role in cascade work. Boiler role is adjusted for Winter and Summer work mode seperately (menu „B").

Possible selection of boiler role:

Not used:
Boiler not be used in cascade work.

Main 1:
- boiler will be work in cascade with other main boiler(s) by factory programmed cascade work mode

Main 2:
- boiler will be work in cascade with other main boiler(s) by factory programmed cascade work mode

Auxiliary 1:
- boiler will be work in cascade only if work all main boilers in cascade and there is a need for additional boiler(s) for heating

Auxiliary 2:
- boiler will be work in cascade only if work all main boilers in cascade and there is a need for additional boiler(s) for heating

Number of offered selections for main and auxiliary boilers depend about number of boilers in cascade (device number, n).

Important:
More than one boiler can be selected in same main or auxiliary group (e.g. boiler 1 and boiler 2 can have main 1 role for work in cascade.)

12.3.2.11.5 TIME TO ON

a) for connection method BUF (buffer tank)

Factory settings: 300s
Possible selection: min. 0s, max. 18000s

Note: Please adjust this parameter to 3600s.

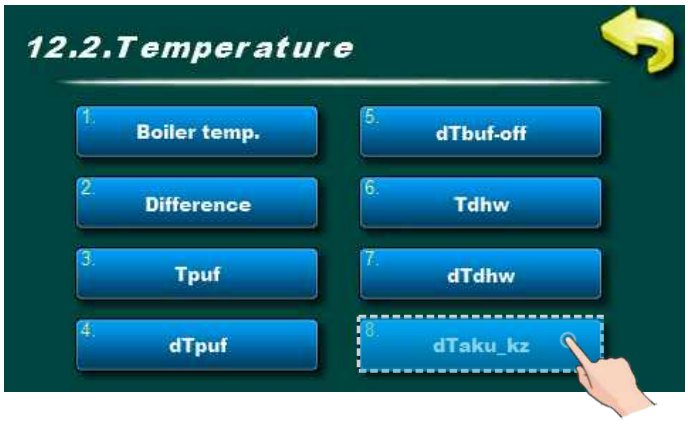
This parameter define after how long of work previous boiler (group), with temperature difference in buffer tank higher than Taku_kz will be turned on next boiler (group).

Taku_kz = Taku_adjusted - Taku_up_measured

Below is described where Taku_kz can be adjusted.

Taku_kz adjustment:

- go to: „12. Installation” menu (must be entered installater pin), „2. Temperature” menu



Factory settings: 6°C
Possible selection: min. 1°C, max. 15°C

a) for connection method CRO + sensor (Hydraulic crossover + sensor)

Factory settings: 300s
Possible selection: min. 0s, max. 18000s

Note: Please adjust this parameter to 3600s.

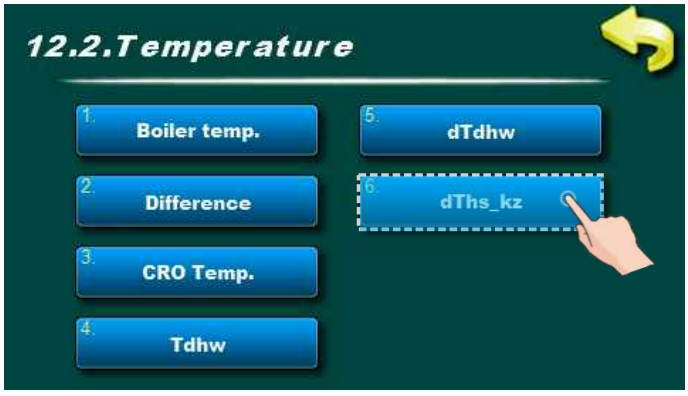
This parameter define after how long of work previous boiler (group), with temperature difference in hydraulic crossover higher than Thsu_kz will be turned on next boiler (group).

Ths_kz = Ths_adjusted - Ths_measured

Below is described where Ths_kz can be adjusted.

Ths_kz adjustment:

- go to: „12. Installation” menu (must be entered installater pin), „2. Temperature” menu



Factory settings: 6°C
Possible selection: min. 1°C, max. 15°C

a) for connection method CRO (Hydraulic crossover)

Factory settings: 300s
Possible selection: min. 0s, max. 18000s

Note: Please adjust this parameter to 3600s.

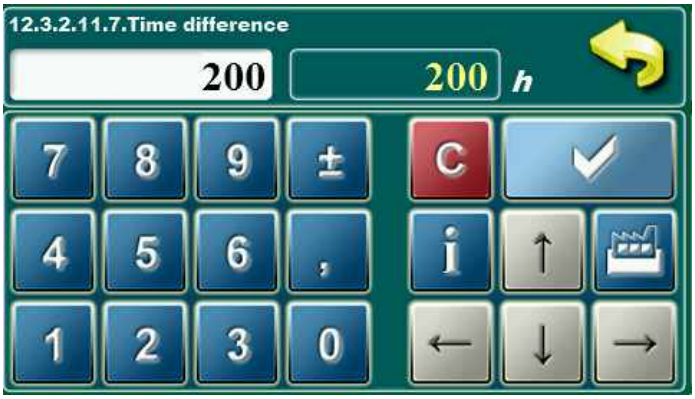
This parameter define after how long of work previous boiler (group), on nominal power will be turned on next boiler (group).

12.3.2.11.6 TIME TO OFF

Factory settings: 300
Possible selection: min. 0, max. 18000

This parameter define time aftew which, if is first boiler (group) in pause, last boiler (group) go to extinction phase.

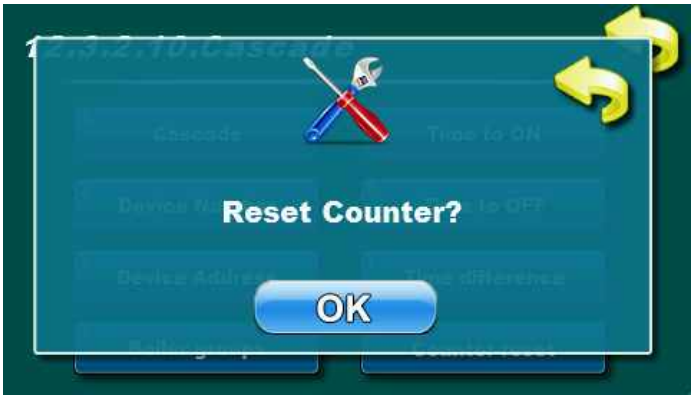
12.3.2.11.6 TIME DIFFERENCE



Factory settings: 200h
Possible selection: min. 0h, max. 500h

This parameter definge after how many hours of work boilers change priority of work. It is adjust in each boiler separately and each boiler can have different values.

12.3.2.11.8 COUNTER RESET



This parameter enable reset of boiler work time counter. It can be reset on each boiler separately.

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