Grzejemy jak Kawaleria®

Operating and assembly manual: electric tankless water heater for central heating systems (Electric heating boiler)

Advanced series:

Captain (AsBN-W)

Colonel (AsZN-W)

Marshal (AsDC-W)

Lieutenant (AsC-W)

Mobil PRO (AsMB PRO)

Industrial series:

Commander (AsHN)

Division (AsB IV)

Mobil Stark

Please see video prior installation

Elterm boilers technical data

Captain (AsBN-W)

4-12kW – 68x37x21cm	15-24kW – 68x41x24cm

Colonel (AsZN-W)

4-12kW – 68x37x21cm	15-24kW – 68x41x24cm

Legal Protection
UP RP no. W. 12654

Marshal (AsDC-W)

6 -24kW – 156x46x46cm

Mobil (AsMB PRO)

4-24kW (30-48kW Stark)

Lieutenant (AsC-W)

4-12kW – 70x54x27cm

Commander (AsHN)

4-12kW – 68x37x21cm	15-24kW – 68x41x24cm

Division (AsB IV)

30 -48kW – 68x41x27cm

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Captain, Colonel, Commander
power 4-12kW

Ø 29,8
75
2 x mounting hole for electrical wires
View from the top
211

365
Ø 29,8
48
200
Mounting hole for electrical wire, back side
680
120
70 55
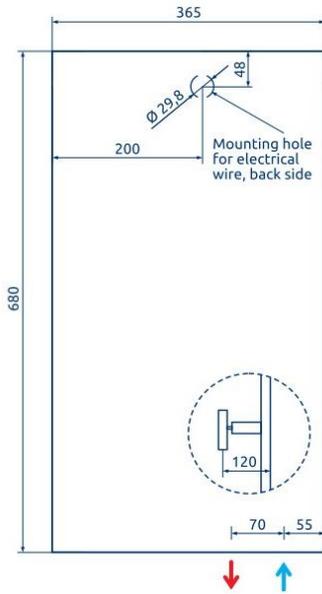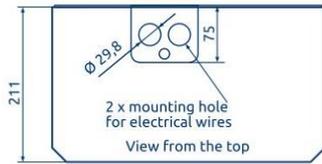
Captain, Colonel, Commander
power 15-24kW

Ø 29,8
75
2 x mounting hole for electrical wires
View from the top
241

410
Ø 29,8
48
200
Mounting hole for electrical wire, back side
680
100
70 70

Marshal
power 6-24kW

minimal room height 2.1m (necessary during assembly)
80 60 60 50 120
circulation.
DHW DHW
CH CH
all connections 3/4" ext. thread
View from the top
455

455
Opening from the top
DHW CH
1560
29kW coil
1070
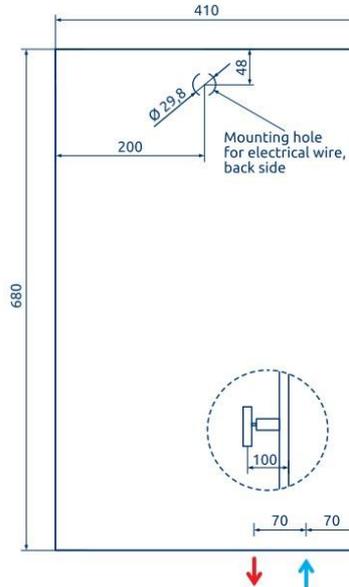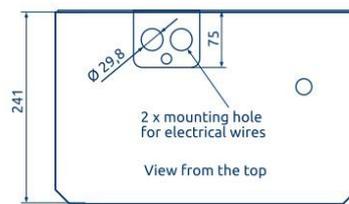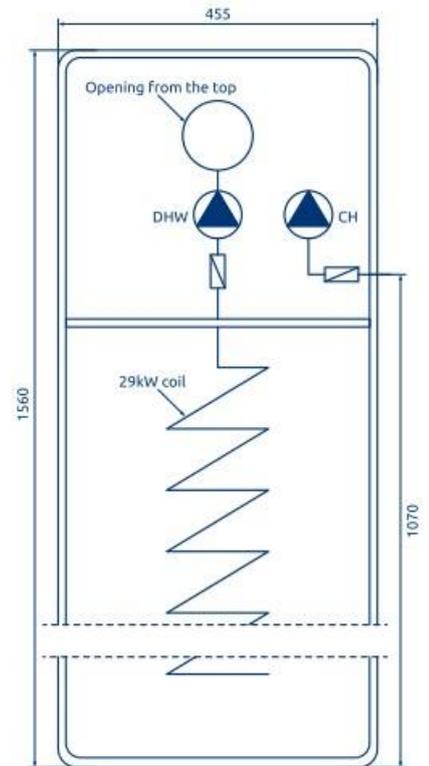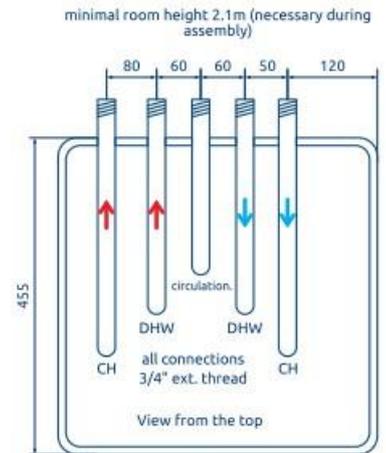
Lieutenant
power 4-12kW (CH) / 12-21kW (DHW)

240
Opening from the top
View from the top

540
700
55
115
DHW CH
85 150 85 125
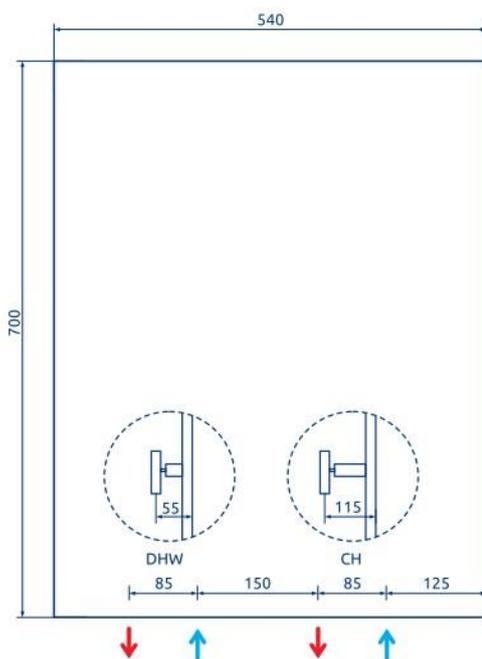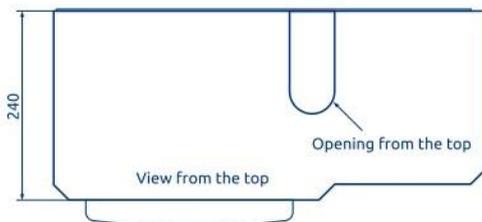
Division, Mobil Stark 30-48kW
Mobil PRO 4-24kW

260
Opening from the top
View from the top

410
180
Mounting hole for electrical wire, back side
Ø 29,8
50
600
55
235 110
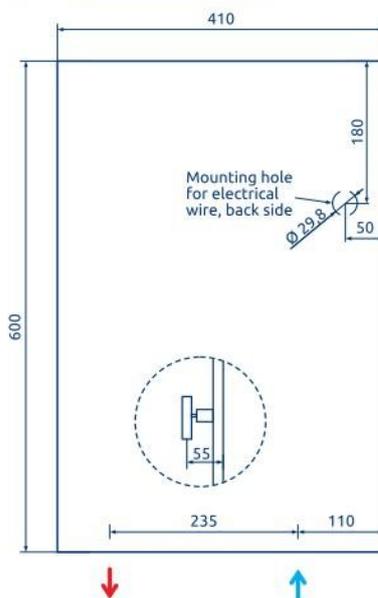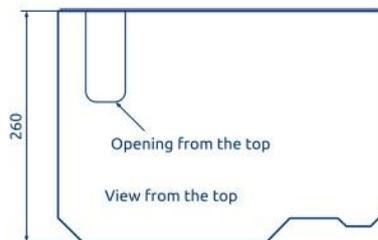
Electric boilers – equipment

	DWH	Flow heater	Built-in 100l tank	Mobile App	Air vent	Manometer	Pump x1	Pump x2	Safety valve	Expansion vessel	Room temperature control	Weather compensation control	Boiler radio controller	Max. operation temp. 70°C	Max. operation temp. 95°C
Electric heating boilers- Advanced LCD automatics															
Captain	●	○	○	●	●	●	●	○	●	○	●	●	●	●	○
Colonel	●	○	○	●	●	●	●	○	●	●	●	●	●	●	○
Lieutenant	○	●	○	●	●	●	●	○	●	●	●	●	●	●	○
Marshal	○	○	●	●	●	●	○	●	●	●	●	●	●	●	○

Electric heating boilers - for industry and continuous operation

	DWH	Flow heater	Built-in 100l tank	Mobile App	Air vent	Manometer	Pump x1	Pump x2	Safety valve	Expansion vessel	Room temperature control	Weather compensation control	Boiler radio controller	Max. operation temp. 70°C	Max. operation temp. 95°C
Electric heating boilers- Advanced LCD automatics															
Commander	●	○	○	●	●	●	●	○	●	●	●	●	●	○	●
Division	●	○	○	●	●	●	●	○	●	○	●	●	●	○	●

* AsMB PRO model equipment is equal to Commander + trolley and additional connection setting + DIN program

* AsMB STARK model equipment is equal to Division + trolley and additional connection setting + DIN program

Power table		50m²	75m²	100m²	125m²	150m²	200m²	250m²	300m²
A+ / A	**Energy efficient building** 20-25cm insulation Ca.50kWh/m²/year Ca. 40W/m²	4 kW	4 kW	6 kW	6 kW	9 kW	9 kW	12 kW	15 kW
B / C	**Standard building** 10-15cm insulation Ca. 90kWh/m²/year Ca. 70W/m²	4 kW	6 kW	9 kW	9 kW	12 kW	15 kW	18 kW	24 kW
D / E	**Energy intensive building** 0-5cm insulation Ca. 150kWh/m²/year Ca. 120W/m²	6 kW	9 kW	12 kW	15 kW	18 kW	24 kW	30 kW	36 kW

Prior purchase please check below electrical requirements table (valid also for build-in flow heaters in AsC and AsC-W models, flow heater and boiler powers do not add up).

Electrical parameters	4 kW 1 phase	4 kW 2 phases	6 kW 1 phase	6 kW 3 phases	9 kW 1 phase	9 kW 3 phases	12 kW 1 phase	12 kW 3 phases	15 kW 3 phases	18 kW 3 phases	24 kW 3 phases
Safety fuses (A)	1 x 20	2 x 10	1 x 32	3 x 10	1 x 40	3 x 16	1 x 63	3 x 20	3 x 25	3 x 32	3 x 40
Power cord (mm²)	3 x 4	5 x 2.5	3 x 4	5 x 2.5	3 x 10	5 x 2.5	3 x 10	5 x 4	5 x 4	5 x 6	5 x 10

	27 kW 3 phases	30 kW 3 phases	33 kW 3 phases	36 kW 3 phases	39 kW 3 phases	42 kW 3 phases	45 kW 3 phases	48 kW 3 phases	66 kW 3 phases	96 kW 3 phases	144 kW 3 phases
Safety fuses (A)	3 x 50	3 x 50	3 x 50	3 x 63	3 x 80	3 x 80	3 x 80	3 x 80	3 x 125	3 x 160	3 x 240
Power cord (mm²)	5 x 16	5 x 16	5 x 16	5 x 16	5 x 25	5 x 25	5 x 25	5 x 25	5 x 50	5 x 70	5 x 120

* The exact cross-section of the power cord is selected by an electrician based on an analysis of local conditions.

APPLICATION

All advanced and industrial series heating boilers are designed to provide heating to small and medium sized locations equipped with either open or closed low-temperature (T<100°C) central heating water systems.

AsBN-W and As B IV boilers in closed central heating system – those models are designed for autonomous operation in both open and closed central heating systems – safety unit and circulation pump are included.

AsZN-W, AsC-W and AsHN boilers in closed central heating system – in closed type layout, the central system needs to be equipped with an expansion vessel, which is not supplied with above models – safety unit, expansion vessel and circulation pump are included.

AsDC-W boiler in closed central heating system – this model is designed for autonomous operation in both open and closed central heating systems – safety unit, expansion vessel and circulation pumps are included. Boiler is build-in on top of 100l hot utility water tank equipped with 29kW coil.

DHW set (option for AsBN-W, AsZN-W, AsHN and AsB IV) – includes electrovalve (DHW priority), wired sensor for tank and activation code. Additional tank with coil (min. 12kW) is required for proper operation.

Module + factory smartphone app (opcja for all above models) – enables all device functions control via smartphone. Separate manual for this feature exist.

HYDRAULIC ASSEMBLY

Please familiarise yourself with the electrical and hydraulic diagram and technical data prior to assembly.

All advanced and industrial boilers are hanging (except **AsDC-W** and **AsMB**), vertical devices and after taking down external metal cast, should be hung on the wall using attached mounting screws. Electric heating boiler has to be connected to the central heating system using couplings (¾", 1" or 1¼" – depending on model) according to the direction of water flow (see glued arrows on boiler). Connection to be made in accordance with PN-91/B-02413 (open systems), PN-91/B-02414 (closed systems) or applicable regulations valid in the country of installation. Central heating system has to be thoroughly flushed prior installation. Heating installation should be flushed prior use and filled with water or anti-freeze fluid (1,5 bar).

ELECTRICAL ASSEMBLY

Connection to the electrical system needs to be done in accordance with regulations applicable in the country where the given boiler is installed and therefore must be done by a qualified electrician only. Boilers are designed for alternating current, 3-phase power supply (400V 3N~50Hz). Models with 4, 6, 9, 12 and 15kW powers are also available without any processing in 1-phase version (230V 1N~50Hz), greater powers can also be prepared in 1-phase version upon request. Boiler's power supply is connected to terminal strip labeled as $L_1L_2L_3N$ or to switch ignition (for **AsHN** and **AsBIV**). PE wire needs to be connected to screw on mounting plate. Technical data table (below) provides information on the cross-section connecting power cord, the applicable parameters of the main fuse protecting boiler, as well as estimated heated areas for main and alternative heating source. Boiler should be connected to permanent electrical system via device enabling boiler's disconnection from heating source at all ends, with the distance between contactors not less than 3mm. Residual current circuit breaker installation is mandatory, see table on page 4 for electrical requirements.

TERMINAL BLOCKS

Terminal blocs are described with below icons

A – CH measurement
B – connection to low loss header
C – CH measurement (opcjation)
D – DHW measurement
E – Factory room temp. measurement
F – Factory weather compensation
G – External room temp. measurement
H – External DHW measurement
I – automatics power supply
J – electrovalve connection (option for DHW set)
K– CH pump for DHW set (option)
L – CH pump
M – circulation pump
N – universal (alarm – option)
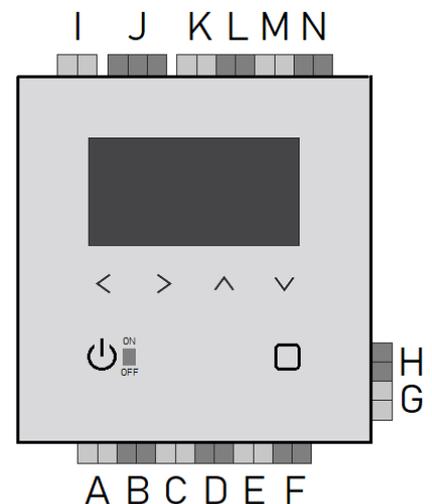
Factory room temperature sensor is connected to boiler by 2-strand wire using terminal **E**, factory weather compensation temperature sensor using terminal **F**, wire is not included

> Boiler by default is not equipped with room temperature controller, therefore open bridge (jumper bar) is placed on terminal G. Device will turn heaters on with closed bridge only.
>
> **In order to prevent increased components wear and unnecessarily inflated electricity bills – bridge needs to be replaced with wired or wireless, voltage free (zero Volt) room temperature controller as soon as possible.**

CONNECTION OF DHW SET (option)

Before connecting DHW set please familiarize yourself with separate electrovalve manual.
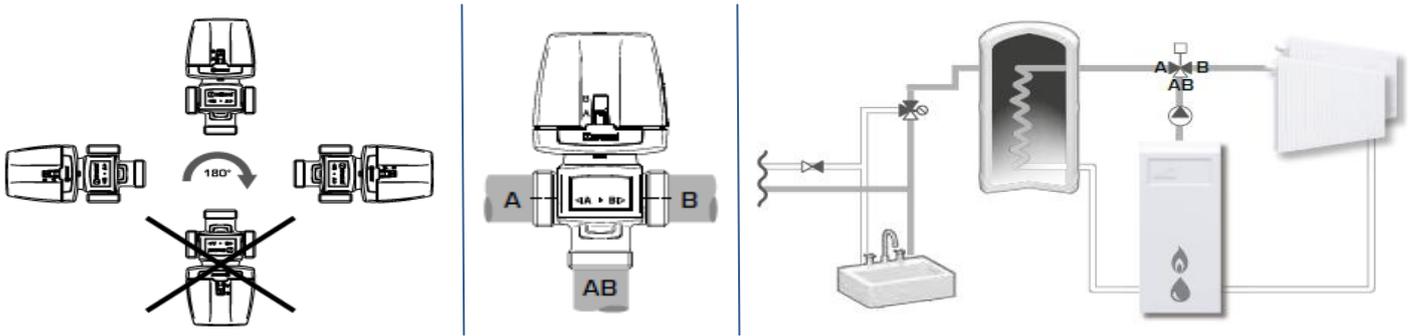
Electrovalve should be connected to terminal **J** (see previous page) – black steering cable (S), blue – neutral (N) and brown – line cable (L). DHW sensor connect to terminal **D**.

Boiler sold with DHW set has this function already activated – no need to change any settings. With separate purchase, both electrovalve and DHW sensor need to be conncted to appriopriate terminals. DHW temperature visible on main screen signals function activation.
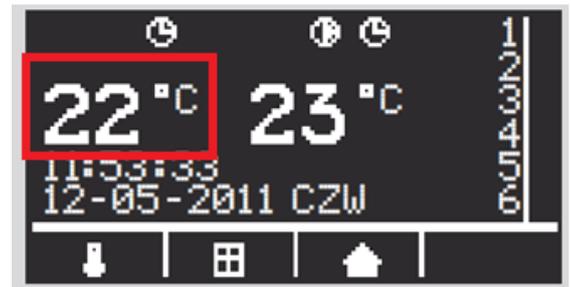
CONTROL PANEL

1. LCD screen
2. DHW signal icon
3. DHW pump active icon
4. DHW program active icon
5. CH signal icon
6. CH pump active icon
7. CH program active icon
8. Current DHW temperature
9. Current CH temperature
10. Time
11. Date
12. CH and DHW temperature setting icon
13. Weather compensation icon
14. Room temperature icon
15. Weekday
16. Relays status
17. Function buttons (symbols ←→ ↑ ↓)
18. ON/OFF + return button
19. Green diode – boiler turned on
20. Red diode – boiler turned off
21. Choose button
22. Internet module connection icon
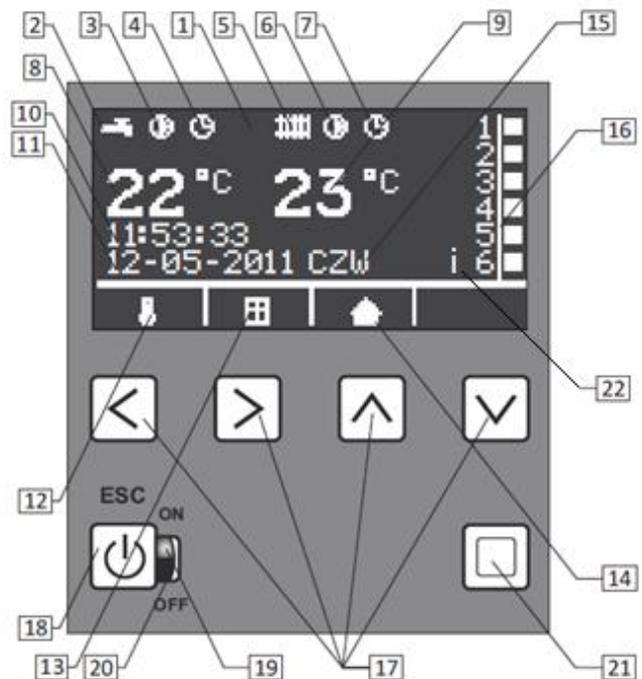
PROGRAMMING

> Make sure the boiler is connected to electrical system in accordance with **hydraulic** and **electrical assembly** section, all valves on radiators shall stay completely open.

Basic settings *(multiple pressing of ⏻ causes return to main menu)*

JĘZYK LANGUAGE POLSKI × ENGLISH OK ▼ ▲	Venting [▬▬▬▬▬▬▬▬▬▬▬] ▥ ◐ ▱ ◐	⏰ ◑⏰ 1/2/3/4/5/6 **22**°C **23**°C 11:53:33 12-05-2011 THU 🌡 ⊞ 🏠
A	**B**	**C**
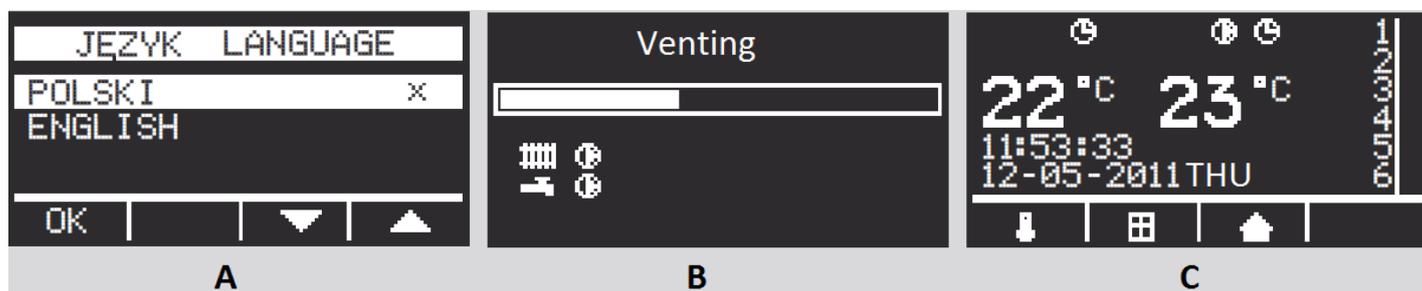
Boiler is on, in stand-by mode – red diode is visible (no 20 on display) – **recommended mode in summer season.** For 5 seconds press⏻, what should cause green diode to light (no 19). Using ↑↓ please choose available language (**A**)(Polish, English, German, French – depending on program version), confirm with ←. Display now shows „Venting" and progress bar (**B**), which counts down 5 minutes needed for all essential activities to vent boiler, pump and whole installation. This function cannot be skipped. In the meantime CH pump is activated (additionally DHW pump for **AsDC-W**), and there is no possibility do turn heaters on. Pre-set venting time should be sufficient to carry out the process, if however it is not enough – whole procedure needs to be repeated by turning boiler off and on again.

Boilers **AsBN-W**, **AsZN-W** and **AsHN** have been programmed with power modulation possibility: 15kW unit power can be reduced to either 4/6/9kW, 18kW unit to 4/6/12kW, and 24kW unit to 12kW. This choice can be made both on initial stage of installation or later one using appropriate parameter (1.14 Max power (kW)).

MAX POWER (kW)
4
OK ▼ ▲
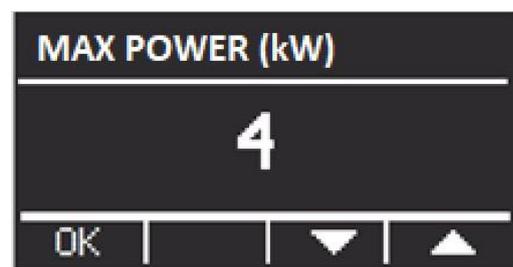
The display switches to the home screen (**C**).

D.H.W. 50 C.H. 50 ▼ ▲	D.H.W. **50** °C DEFAULT 50 ▼ ▲	C.H. **50** °C DEFAULT 50 ▼ ▲
D	**E**	**F**
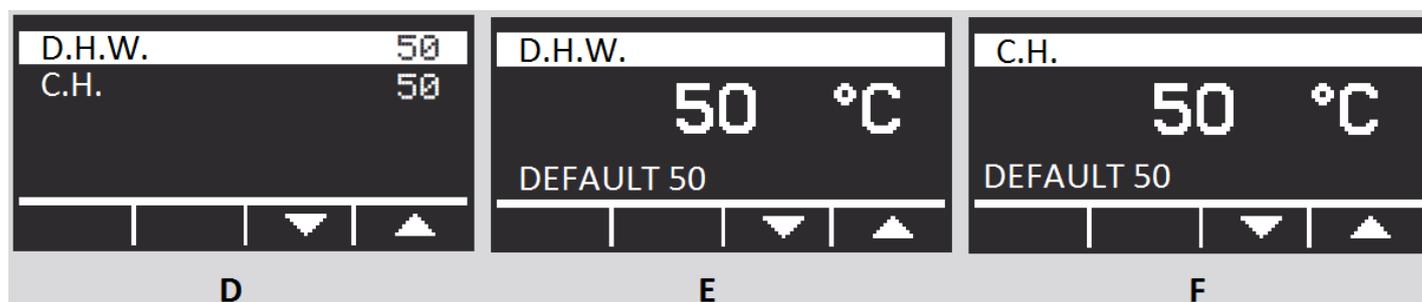
CH and DHW (AsDC-W and **DHW set) temperature setting** – enter function from home screen (**C**) by pressing ←, using ↑↓ choose either CH or DHW (**D**). Press ☐ to enter temperature setting (**E**)(**F**), then using ↑↓ increase or decrease parameter value. The choice is set by pressing⏻.

G	H	I
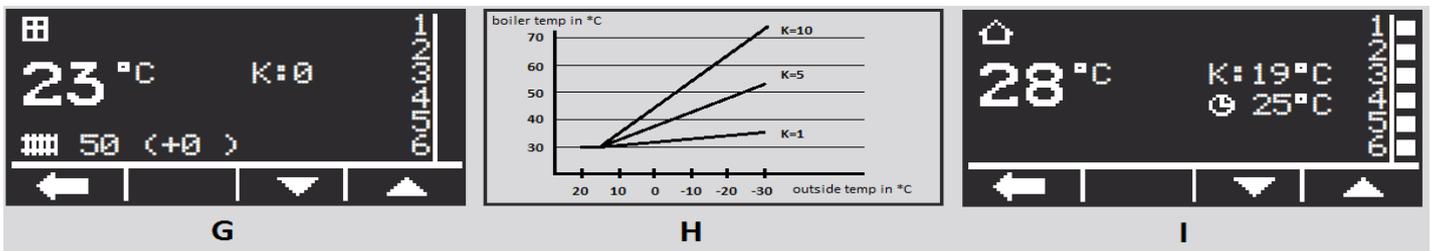
Weather compensation curve (G) – enter function from home screen (C) by pressing →, using ↑↓ choose weather compensation curve (0 to 10). Curves operate for outside temperatures lower than 15°C, with zero meaning no compensation. In standard operation mode, boiler maintains preset temperature increased by adjustment parameter in accordance with below table.

For every outside temperature degree below 15°C, adjustment parameters are as follow:									
K=1	0,1°C	K=3	0,3°C	K=5	0,5°C	K=7	0,7°C	K=9	0,9°C
K=2	0,2°C	K=4	0,4°C	K=6	0,6°C	K=8	0,8°C	K=10	1,0°C

Example (H): Curve is set on K=5 with boiler preset temperature 30°C. For outside temperature over 15°C, boiler maintains 30°C. When it cools down to 5°C, adjustment will estimate: 10 x 0,5 = 5°C (degrees below 15°C x value for K=5), so the boiler will maintain 35°C; when it's –5°C, adjustment will estimate 20 x 0,5 = 10°C, so the boiler will maintain 40°C, etc.

Room temperature setting on boiler (I) – enter function from home screen (C) by pressing ↓, using ↑↓ change preset room temperature in range 5–30°C.

Detailed settings *(multiple pressing of ⏻ causes return to main menu)*

J	K	L

Menu structure (J, K, L):
1. Settings
   - 1.1. Power
   - 1.2. Sections
   - 1.3. Date & time
   - 1.4. PID-P
   - 1.5. Hysteresis CO
   - 1.6. Hysteresis CWU
   - 1.7. Default settings
   - 1.8. Room programs
   - 1.9. DHW programs
   - 1.10. Circulation pump
   - 1.11. Circulation time
   - 1.12. Calibration
   - 1.13. Internet
   - 1.14. Max power
   - 1.15. Battery (cascade operation)
2. Energy consumption
3. Venting

M	N
O	P
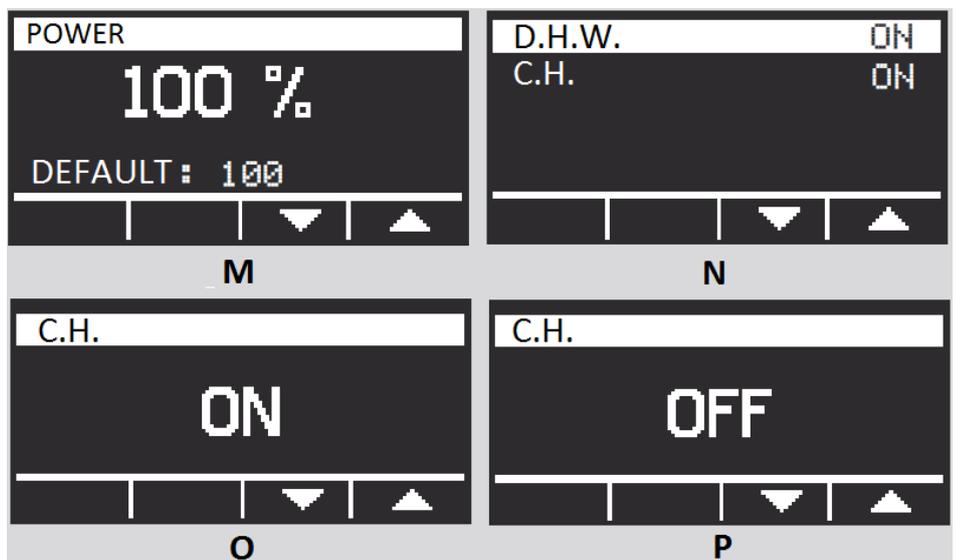
1.1. Settings/Power – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose Power **(K)** and press ⬚ once more. Using ↑↓ change power in range 33/66/100% **(M)**. The choice is set by pressing ⏻.

1.2. Settings/Sections – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose Sections **(K)** and press ⬚ once more. Using ↑↓ switch between CH and DHW **(N)**. Press ⬚ to enter chosen section and using ↑↓ switch between active (ON)**(O)** and inactive (OFF)**(P)** status. The choice is set by pressing ⏻.

11:53:20 13-05-2011 FRI ← → ▼ ▲	PID-P 1 DEFAULT: 2 ▼ ▲	CH HYSTERESIS 2 DEFAULT: 4 ▼ ▲
R	**S**	**T**
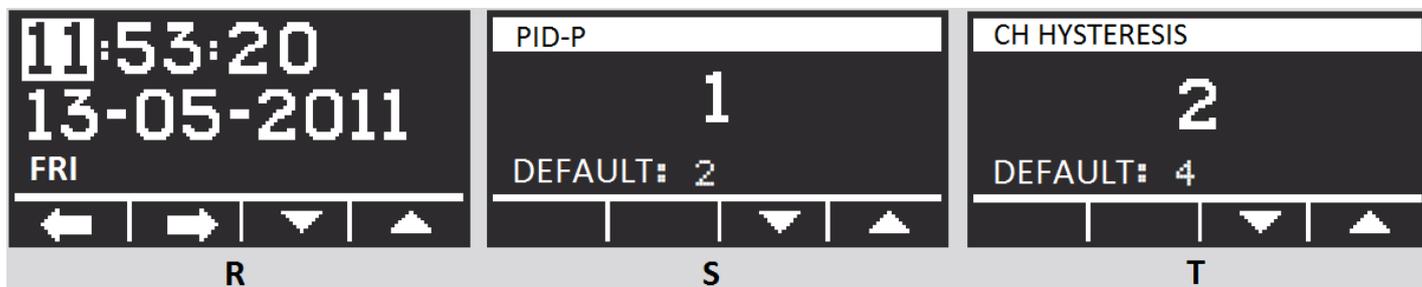
1.3. Settings/Date & time – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose Date & time **(K)** and press ⬚ once more. Using ←→ **(R)** switch between hour, date, weekday, and then using ↑↓ change parameters values, which are set by pressing ⏻.

1.4. Settings/PID-P – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose PID-P **(K)** and press ⬚ once more. Using ↑↓ **(S)** change parameter value, which is then set by pressing ⏻. *Attention: In case boiler needs long time to reach set temperature – correct parameter value is 4 or 5, for too quick operation - choose 1 or 2.*

1.5. Settings/CH Hysteresis – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose CH Hysteresis **(K)** and press ⬚ once more. Using ↑↓ **(T)** change parameter value (range 1–2–3–4–5–6), which is then set by pressing ⏻.

DHW HYSTERESIS 4 DEFAULT: 4 ▼ ▲	DEF. SETTINGS NO YES ← → OK	DEF. SETTINGS NO YES ← → OK
U	**W**	**Y**
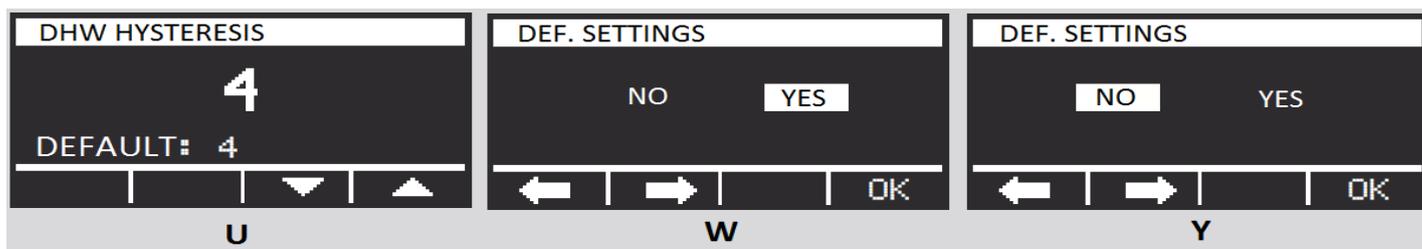
1.6. Settings/DHW Hysteresis – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose DHW Hysteresis **(L)** and press ⬚ once more. Using ↑↓ **(U)** change parameter value (range 1–2–3–4–5–6), which is then set by pressing ⏻.

1.7. Settings/Default settings – press ⬚ on home screen **(C)** and enter SETTINGS **(J)**, then choose Def. settings **(L)** and press ⬚ once more. Using ← **(W/Y)** resign from default settings (NO), → agree on those settings (YES), ↑ activate settings. ⏻ – confirm choice.

Default settings

DHW temperature	50°C	CH sections	ON
CH temperature	50°C	PID-P	3
Power	100%	CH hysteresis	6
DHW sections	ON	DHW hysteresis	7

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Room and DHW programs – settings

Room and DHW programs enable setting and maintaining requested temperature at any defined time periods with one minute accuracy. Intuitive menu and illuminated display make the programming process easy. All settings are stored in non-volatile memory and are not deleted even in case of a power off. Electronic processor enables setting 9 independent programs, each can define requested temperature within any given time span.

When two different temperatures from different programs overlap, higher one is prioritized.

	MO	TU	WE	TH	FR	SA	SU	
I	MO	TU	WE	TH	FR	SA	SU	Active days: **all**
II	MO		WE		FR		SU	Active days: **4**
III	MO			TH			SU	Active days: **3**
IV	MO	TU	WE	TH	FR	SA	SU	Active day: **1 (to choose)**
V	MO	TU	WE	TH	FR			Active days: **working days**
VI						SA	SU	Active days: **weekend**
VII	MO	TU	WE	TH	FR	SA		Active days: **6**
VIII								Active days: **any**
IX								Active days: **any**
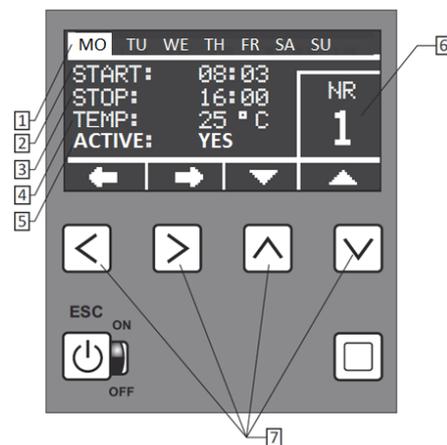
1. Weekdays, **2.** Program start, **3.** Program stop, **4.** Temp. setting: 20–70°C, **5.** Active: yes/no, **6.** Program number: from 1 to 9, **7.** Function buttons

Z	a	b
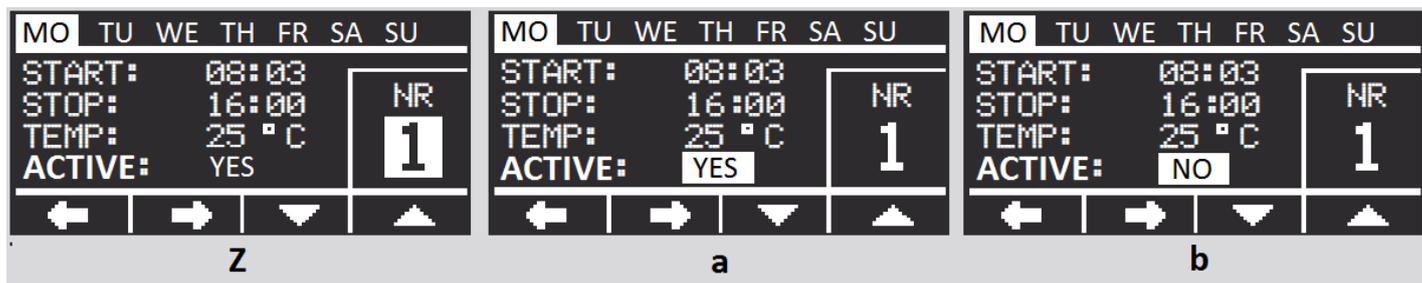
1.8. Settings/ROOM programs – press ▢ on home screen (**C**) and enter SETTINGS (**J**), then choose Room programs (**L**) and press ▢ once more. Using ←→ (**Z**) switch between parameters (weekdays, working time, temperature, status), using ↑↓ change parameter value, which is then set by pressing ⏻.

1.9. Settings/DHW programs (for **AsDC–W** and **DHW set**) – press ▢ on home screen (**C**) and enter SETTINGS (**J**), then choose DHW programs (**L**) and press ▢ once more. Using ←→ (**Z**) switch between parameters (weekdays, working time, temperature, status), using ↑↓ change parameter value, which is then set by pressing ⏻.

Active/Inactive status – each program can be temporarily turned off. In order to do that, change status within selected program (either Room or DHW one) for: no (**b**). To activate previously turned off program – set status for: yes (**a**).

1.10. Settings/Circulation pump – press ▢ on home screen (**C**) and enter SETTINGS (**J**), then choose Circulation pump and press ▢ once more. Using ←→ switch between parameters (weekdays, working time, temperature, status), using ↑↓ change parameter value, which is then set by pressing ⏻.

1.11. Settings/Circulation time – press ⬜ on home screen (**C**) and enter SETTINGS (**J**), then choose Circulation time and press ⬜ once more. Using ↑↓ change parameter value, which is then set by pressing ⏻.

1.12. Calibration – press ⬜ on home screen (**C**) and enter SETTINGS (**J**), then choose Calibration and press ⬜ once more. Using ↑↓ switch between parameters correcting room temperature sensor or weather compensation sensor, using ↑↓ change parameter value, which is then set by pressing ⏻.

1.13. Internet – press ⬜ on home screen (**C**) and enter SETTINGS (**J**), then choose Internet and press ⬜ once more. Using ↑↓ input ID parameters, you can also change PIN, data is then set by pressing ⏻.

1.14. Max power (kW) – option. Press ⬜ on home screen (**C**) and enter SETTINGS (**J**), then choose Max power and press ⬜ once more. Using ↑↓ switch between available powers, using ↑↓ change parameter value, which is then set by pressing ⏻.

2. Energy consumption - press ⬜ on home screen (**C**) and enter ENERGY CONSUMPTION (**J**). Press ⬜ once more to display energy consumption counters (**c**). Using → reset erasable counter (**RES. COUNTER**) – which shows consumed energy in kWh since measurement start till any given moment within 24h time span. After 24 hours, counter stops automatically. **LAST 24H** – calculates energy consumption over the last 24 hours with 20 min. updates. **LIMIT** option - press ↓, what enables to set max level of kWh boiler uses before turning off – that is a PV ready feature. Operating in LIMIT mode is signalled by blinking LIMIT icon on main screen. ⏻ - return.

3. Venting – function enables additional system venting without turning boiler off. Proper system venting guarantees its correct and prolonged, faultless operation. Function also enables to check proper pump/pumps work. Press ⬜ on home screen (**C**) and enter VENTING (**J**). Press ⬜ once more to display D.H.W./C.H. options (**d**). Using ↑↓ change parameter value– ON/OFF (**e**), which is then set by pressing ⏻.

> Elterm boilers are equipped in **AntiStop function**. Automatics turns the pump on for one minute once every 14 days, what prevents it's rotor from seizing. AntiStop operates independently from on/off mode. It is therefore highly recommended to keep boiler in off mode (red diode visible) in off-heating season - in this mode device uses just 0,5W!

⚠️ Do not remove boiler external metal casing once device remains turned on. In case boiler is activated by mistake with no water inside, wait until heaters cool down, fill device with water and switch it on again. Under no circumstances fill device with cold water with heaters still hot! Once water in central heating system is heated, system should be bled once again (special attention must be paid to the bleeding of the central heating pump and boiler air vent).

NOTES

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For more information please visit www.elterm.pl

Elterm M.M.Kaszuba Sp.J., ul. Przemysłowa 5, 86-200 Chełmno   www.elterm.pl

Declaration of conformity CE – EN1/2020

Elterm M.M.Kaszuba Sp.j., ul Przemysłowa 5, 86-200, Chełmno, Polska

We herewith declare, under our sole responsibility, that the following products: Tankless water heater for central heating systems (electric central heating boiler) type **EKW As**:

Variants:
- ~ 230V,50Hz, max.power 4kW, 6kW, 9kW,12kW, 15kW, 18kW, 21kW and 24kW
- 3N~400V,50Hz, max.power 4kW, 6kW, 9kW,12kW, 15kW, 18kW, 21kW, 24kW, 27kW, 30kW, 33kW, 36kW, 39kW, 42kW, 45kW, 48kW and boiler cascades 1,5MW (each boiler up to 48kW)

Models: AsPC, AsP, AsBN, AsZN, AsD, AsC, AsBI, AsBN-W, AsZN-W, AsD-W, AsC-W, AsDC-W, AsBII, AsHZ, AsHN, AsBIII, AsBIV, AsMB , manufactured at the Elterm production plant, are in conformity with the applicable provisions of the following EC Directives:

Number	Title
2006/95/WE as amended	Low Voltage Directive (LVD)
2004/108/WE as amended	Electromagnetic Compatibility Directive (EMC)
2002/95/WE as amended	Directive on the restriction of the use of certain hazardous substance in electrical and electronic equipment (RoHS)
2002/96/WE as amended	Directive on waste electrical and electronic equipment (WEEE), GIOŚ register number E0001767
ErP 2009/125/WE	General rules for setting requirements concerning Ecodesign for energy related products (Attachment 13)
EU Commission regulation nr 622/2012	With regard to Ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products

and that the standards hereinafter referred to have been duly applied and observed. The harmonized standards applicable to the product to which this declaration of conformity pertains:

Number	Issue	Title
PN-EN 60335-1	2006 (U) as amended	Safety of household and similar devices
PN-EN 60335-2-35	2007 (U) as amended	Particular requirements for tankless water heaters
PN-EN 55014-1	2002 as amended	Interference emission for domestic appliances
PN-EN 55014-2	2004 as amended	Interference immunity
PN-EN 61000-3-2	2004 as amended	Harmonic current emissions
PN-EN 61000-3-11	2000 as amended	Limitation of voltage fluctuations and flicker in low-voltage supply systems
PN-EN 50366	2006 (U) as amended	Electromagnetic fields- methods for evaluation and measurement

Other documents or information required by the EC Directives:

Report number:	Laboratory:
B-47/03	KEWA – ECO, Bydgoszcz
CLBT/ZR/67/2003	GP – CLBT, Warszawa
456/BS/EMC/04	PREDOM – OBR, Warszawa
BE/39/2006	Laboratorium Elektrotechniczne PCBC S.A.
BEM-66/07	Laboratorium Badawcze Maszyn i Urządzeń J.N.B. EUROVITA Sp. z o.o.
B-71/07	Laboratorium Badawcze Maszyn i Urządzeń J.N.B. EUROVITA Sp. z o.o.

Chełmno, May 4th 2020

Maciej Kaszuba

GUARANTEE

Boiler model: Serial number: Production date: Sales date:	 Legible stamp and signature of sales point

Stamp of installing company (hydraulics)	Stamp of installing company (electricity)	I declare I have familiarized myself with guarantee terms.
Without above stamps and signatures, guarantee is not valid.		

1. Guarantee for trouble-free operation is valid for a period of 24 months (12 months for **AsMB**).
2. Guarantee expires if any alterations are made to the product without the manufacturer's consent, or if assembly or use are not in accordance with the enclosed operation manual and terms and conditions of guarantee.
3. Guarantee repairs are made by the manufacturer or persons/companies authorized by the same.
4. If filled out incompletely, the guarantee is invalid.
5. If the serviceperson discovers machine failure resulting from the user's fault (e.g. improperly made wiring system, air-locked central heating system, use or assembly that is not in compliance with the user manual etc.), or in the event the guarantee is invalid, the costs of repair and travelling are borne by the claimant.
6. Failure on the part of the user to follow the serviceperson's recommendations provided in the guarantee repair protocol results in the guarantee being suspended until such recommendations are implemented.

Stamp of serviceman, short description of repair and recommendations for the user

Following guarantee repair by the serviceman, one of the below guarantee coupons to be cut off, filled out and handed to the serviceman.

Guarantee coupon I	Guarantee coupon II
_____ Full name and address of the boiler owner	_____ Full name and address of the boiler owner
_____ Postal code, town /Boiler owner tel. no	_____ Postal code, town /Boiler owner tel. no
_____ _____ Production date Boiler serial no.	_____ _____ Production date Boiler serial no.

Elterm – leading Polish manufacturer of comprehensive heating solutions!

1 Vertical low loss headers :SHE, SHE-OC, SHE-SM, SHE-CD and SHE-CDI
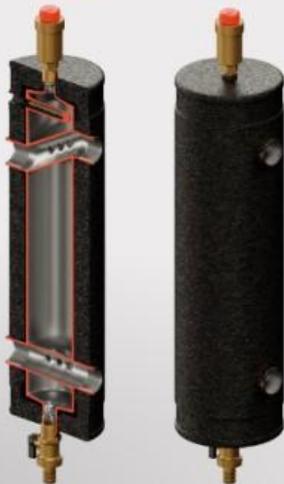
2 Distribution low loss headers SKE and SKE Condens: SKE 2D+, SKE 2DC+, SKE 4DC+

3 Pump groups: VRG, VTA & Universal

4 Company set – 28 combination: with VRG, VTA valves & universal

5 Squadron set – 6 combinations with thermostatic valve & rotary valve

6 Connecting manifolds 2D+ & 3D+

7 Magnetic filter and basket strainer DRYL

8 Safety heat exchanger Guardian

9 Quartermaster controller