Instructions for operation and assembly of the electric water heater.

Advanced Series:

- **Captain** (AsBN-W)
- **Colonel** (AsZN-W)
- **General** (AsD-W)
- **Marshal** (AsDC-W)
- **Lieutenant** (AsC-W)

Industrial series:

- **Hetman** (AsHN)
- **Division** (AsB IV)

Please watch the instructional video before installation ⇨

2. General recommendations for safety and proper use:

2.1. These operating instructions are intended for the operator of the heating system. To avoid danger to life and health and damage of material, read all enclosed instructions and strictly observe the information contained therein.

2.2 Follow the safety instructions. Failure to follow this information may cause harm to your health, including death. **Never put yourself in danger. Your own safety is always the most important thing.** Furthermore, non-compliance with the safety instructions can lead to material and environmental damage.

2.3. It must be ensured that only persons who are capable of operating the equipment properly have access to it.

2.4. The electrical and hydraulic assembly, start-up of the device and maintenance should only be carried out by qualified persons with the legally required authorisations. The manufacturer is not responsible for improper connection of the unit to the central heating or electrical system. The warranty and service does not cover work resulting from improper operation of the central heating system.

2.5. For safe operation of the boiler, it is absolutely necessary to provide adequate overcurrent and differential current protection. The installation of the protection must be carried out by a qualified electrician.

2.6. The boiler is always operated at the correct recommended operating pressure. A safety valve is fitted to the device to prevent it from operating at excessive pressure. Therefore, it should not be dismantled or closed.

2.6.1. If thermostatic valves are present, a bypass giving the minimum working flow rate must be provided on all terminals or zone valves. The system must also be equipped with vent valves and properly vented before starting up.

2.7. The unit should not be exposed to ambient temperatures below zero or above 35°C. The installation location of the unit must protect it from the above-mentioned microclimatic conditions.

2.8. The installation of the boiler must be carried out in such a way that it is accessible from all sides at a later date. Mounting the appliance too close to other surfaces (e.g. wall, ceiling), may reduce its operational safety and cause difficulties in its operation.

2.9. When assembling the boiler, shut-off valves must be provided in the system at the inlet and outlet of the boiler in such a way that the boiler can be removed if necessary.

2.10. Do not store any flammable materials or liquids within the unit.

2.11. The quality of the water used in the central heating system can affect the operation of the boiler. If the water is too hard, it causes limescale to build up on the heating elements of the boiler. This reduces efficiency and increases energy consumption.

2.12. Once a year, especially before the heating season, the entire heating installation should be cleaned and maintained. The system must be prepared for proper operation, including being checked. Any faults found must be rectified immediately.

2.13. Before starting up the device, check that the type of boiler is correctly matched to the installation and will perform its function.

2.14. After unpacking the heating boiler, check its physical condition and the completeness of the equipment.

2.15. Some of the boiler components are made by hand. Because of this, slight deviations may occur with regard to their mutual fit.

2.15. Before starting any work including the removal of the boiler housing, the device must be completely disconnected from the electrical supply and protected against unintentional restarting.

2.16. Incorrect connection of the heating boiler can lead to damage for which the manufacturer is not responsible.

2.17. The manufacturer is not responsible for damage resulting from the use of non-original parts.
Use only original manufacturer's spare parts and accessories.

3. Technical data of Elterm electric water boilers


Captain (AsBN-W)

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


Colonel (AsZN-W)

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


Marshal (AsDC-W)

6 -24kW – 156x46x46cm

Lieutenant (AsC-W)

4-12kW – 70x54x27cm

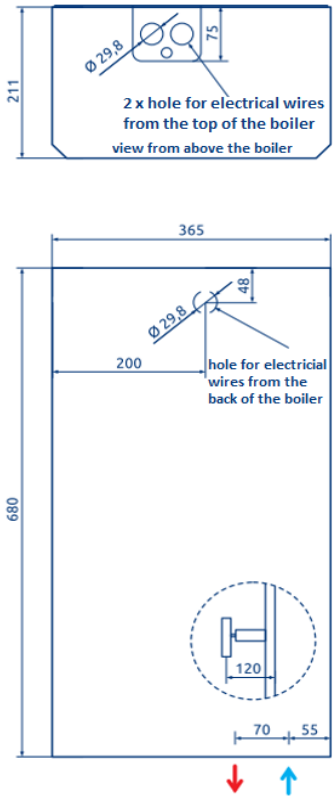

Hetman (AsHN)

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

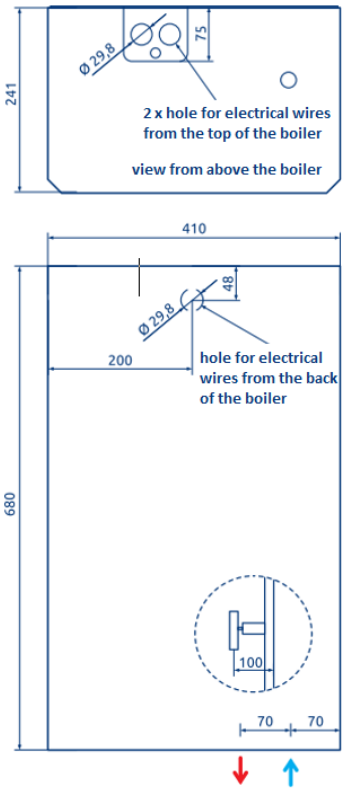

Division (AsB IV)

30 -48kW – 68x41x27cm

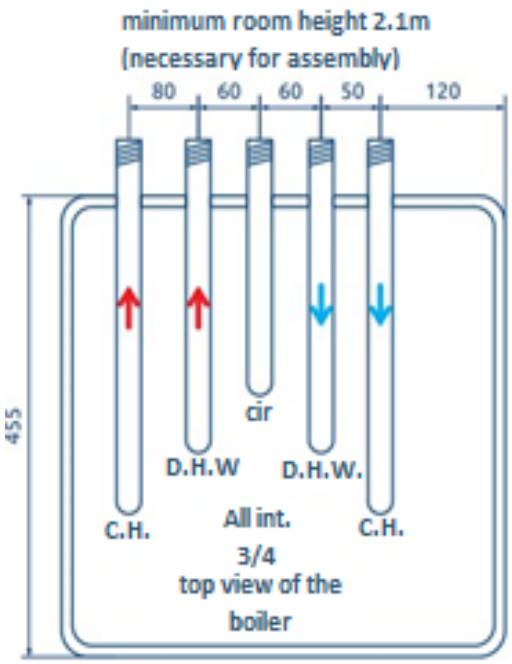
Captain, Colonel, Hetman
Power of 4-12kW



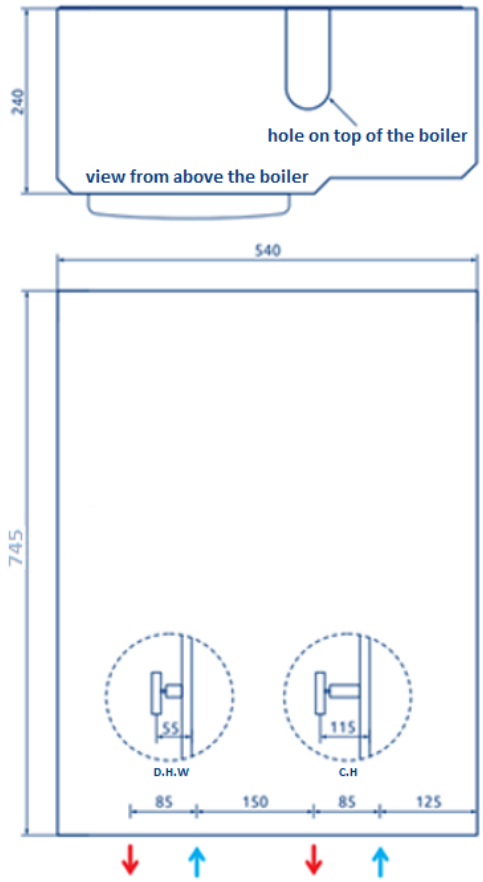
Captain, Colonel, Hetman
Power of 15-24kW



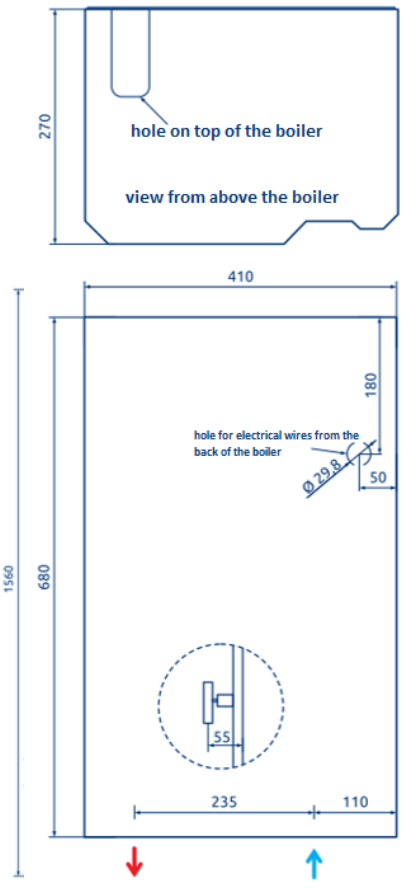
Marshal
Power of 6-24kW

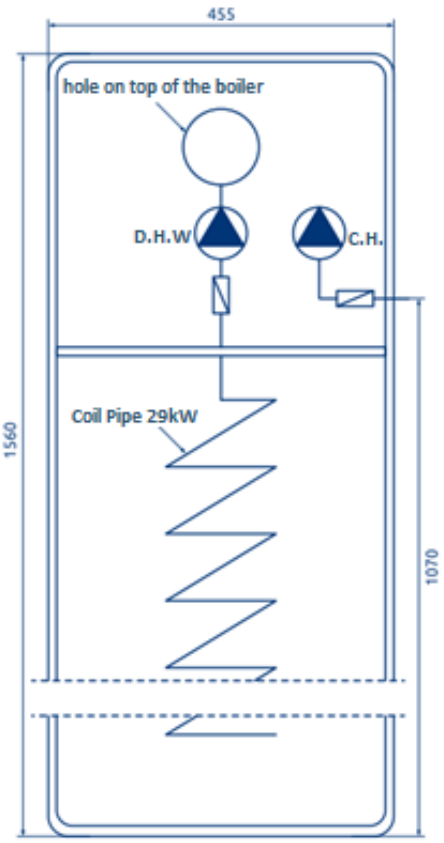


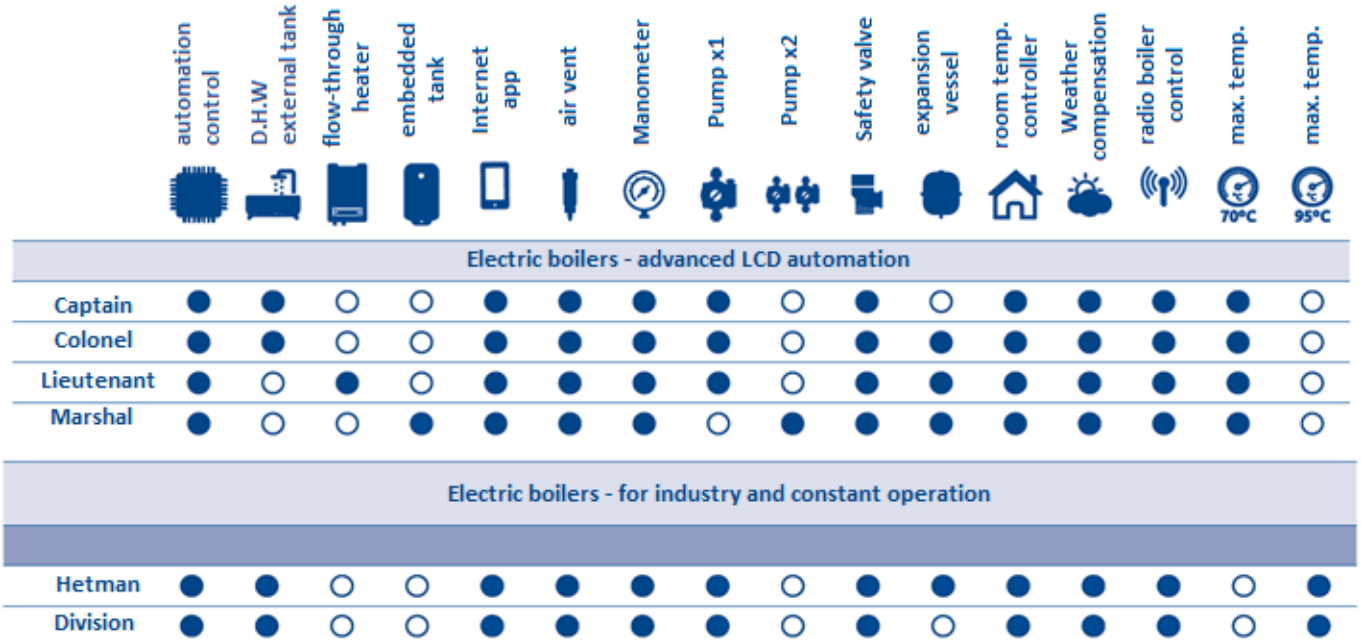
Lieutenant
power 4-12kW (C.H.) / 12-21kW (D.H.W.)



Division
power of 30-48kW







PV ready

Our electric boilers optimise the use of energy from photovoltaic installations :

- due to the built-in energy consumption counter, they can use the excess energy and then switch off (the excess will not be lost)
- during the transitional heating period can increase the level of energy self-consumption (limited 20-30% energy storage loss)
- by using them for C.H. or D.H.W. heating, they increase the payback period on photovoltaic investments
- can be combined with existing heat sources
- have an investment cost that is approximately 10 times lower than that of a heat pump

	Boiler power selection table	50m²	75m²	100m²	125m²	150m²	200m²	250m²	300m²
A+ A	**Energy efficient building** *20-25cm insulation* *TEUI Abt.50kWh/m²/year* *Abt. 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* *TEUI Abt. 90kWh/m²/year* *Abt. 70W/m²*	4 kW	6 kW	9 kW	9 kW	12 kW	15 kW	18 kW	24 kW
D E	**Energy efficient building** *0-5cm insulation* *TEUI Abt. 150kWh/m²/year* *Abt. 120W/m²*	6 kW	9 kW	12 kW	15 kW	18 kW	24 kW	30 kW	36 kW

Security selection	4 kW	4 kW	6 kW	6 kW	9 kW	9 kW	12 kW	12 kW	15 kW	18 kW	24 kW
	1 Phase	3 Phase	1 Phase	3 Phase	1 Phase	3 Phase	1 Phase	3 Phase	3 Phase	3 Phase	3 Phase
Fuses (A)	1 x 20	3 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

Security selection	27 kW	30 kW	33 kW	36 kW	39 kW	42 kW	45 kW	48 kW	66 kW	96 kW	144 kW
	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase
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 the electrician on the basis of an analysis of the local conditions.

4. Destination:

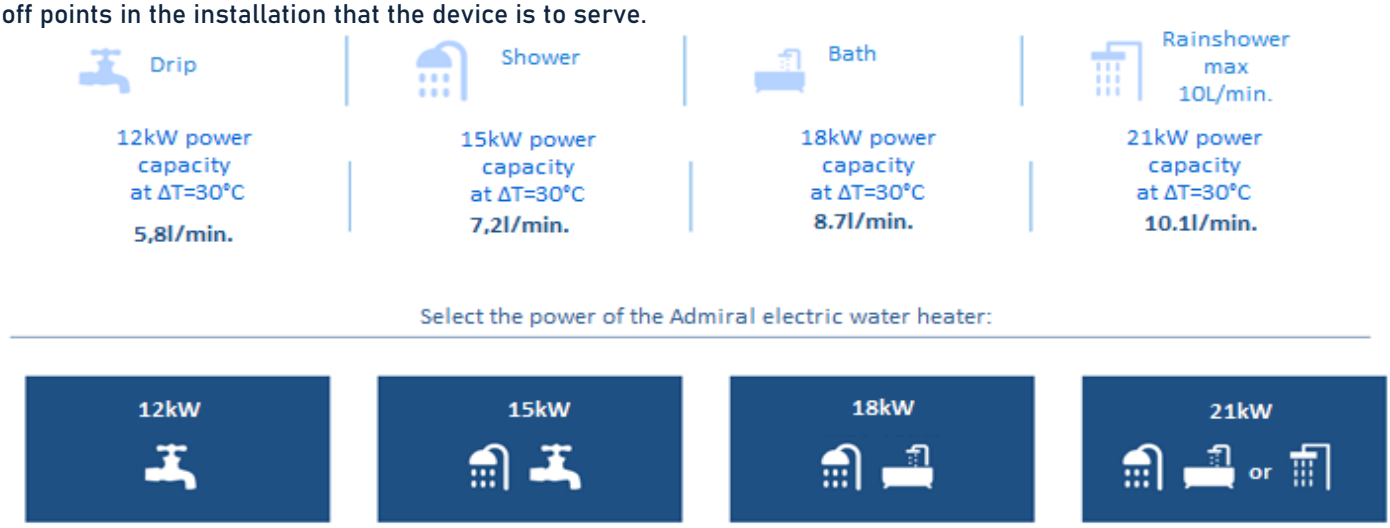
4.1. All boilers in the advanced and industrial series are designed for heating small and medium-sized buildings equipped with low-temperature (T<100°C) closed or open central heating systems.

4.2. Captain boiler (AsBN-W) and Division boiler (AsB IV) in a closed central heating system. - The installation requires the assembly of a expansion vessel - it is not included. The boiler is equipped with a safety group and an electronic pump.

4.3. The Colonel (AsZN-W), General (AsD-W), Lieutenant (AsC-W) and Hetman (AsHN) boilers in a closed central heating system. - The boiler is adapted for independent operation in a closed and open central heating system. The boiler is equipped with a safety group, a 5 or 8l expansion vessel (4l for AsC-W) and an electronic pump.

4.4 Marshal boiler (AsDC-W) in a closed central heating system. - The boiler is adapted for independent operation in a closed and open central heating system. The boiler is equipped with a safety group, a 5l expansion vessel and two electronic pumps. The boiler is installed directly on a hot water tank with a capacity of 100l and equipped with a tube coil..

4.5. The Lieutenant boiler (AsC - W) is a dual-function unit. A central heating body and an Admiral instantaneous hot water heater are installed in one housing. These devices operate independently of each other. Instructions for the heater are included separately. In the case of this type of boiler, the safety devices are selected for the unit with the higher capacity.
The figure below shows the heater selection parameters. Select the appropriate heater power for the existing draw-off points in the installation that the device is to serve.



4.6. DHW package. (option for AsBN-W, AsZN-W, AsD-W, AsHN and AsB IV models) - consists of an electro-valve (DHW priority), a pipe with sensor to the tank and an activation code. An additional tank with a coil tube (min. 12kW) is required for proper operation of the unit.

4.7. Module + factory smartphone app (option for all models) - allows all boiler functions to be controlled via a mobile phone. A separate user manual describes the possibilities of this option and its configuration.

4.8. The radio sensors - weather and room sensors (optional for all models) - make it possible to read the temperature wirelessly. The sensor connects by radio to a module that plugs into the control board of the unit. Installation and operation details are described in a separate manual.

Remember! Every time you spot this QR code, scan it and you will be able to visit a playlist with instructional videos linked to the manual. Follow the names of the individual videos in the playlist.

5. Hydraulic assembly:

Before assembly, familiarise yourself with the hydraulic and electrical scheme (see data sheet).

5.1. All electric boilers, with the exception of the free-standing Marshal model (AsDC-W), are wall-mounted units that should be hung on the wall when the metal housing is removed.

5.2. The boiler must be mounted so that it is accessible from all sides at a later date. Mounting the device too close to other surfaces (e.g. walls, ceilings, buildings), may reduce its operational safety and cause difficulties in its operation. The minimum distance to any surface is 50cm.

5.3. When the boiler is assembled, shut-off valves must be installed at the boiler inlet and outlet in such a way that they can be removed if necessary.

5.4. The electric boilers must be connected to the system using the appropriate size of screw connections (3/4", 1" or 5/4" - depending on the model) according to the direction of water flow (see corresponding arrows).

5.5. Flush the heating system before start-up and fill the closed system with water or antifreeze (pressure - 1.5 bar). When installing a new boiler in a previously used system, especially if the heat source was a solid fuel boiler, the system must be flushed. Failure to do so can significantly affect the efficiency of the unit.

6. Electrical assembly:

6.1. The connection to the electrical system must be made in accordance with the current regulations of the country in which the boiler is installed and must only be carried out by a qualified electrician (evidence of this is included in the guarantee).

6.2. The boilers are suitable for 3-phase AC power (400V 3N~50Hz). The 4, 6 and 9kW models are also available in 1-phase (230V1N~50Hz),

6.3. **Single-phase connection:** if the boiler is connected to a single-phase installation, all supply lines - L1L2L3 - must be connected (bridged); a comb junction rail can be used (rail not supplied).

6.4. **Three-phase connection:**

a) the electrical supply to the boiler is connected to a terminal strip (marked L1L2L3N) or to an isolating switch.

b) the PE wire must be connected to the M8 screw housing of the boiler base.

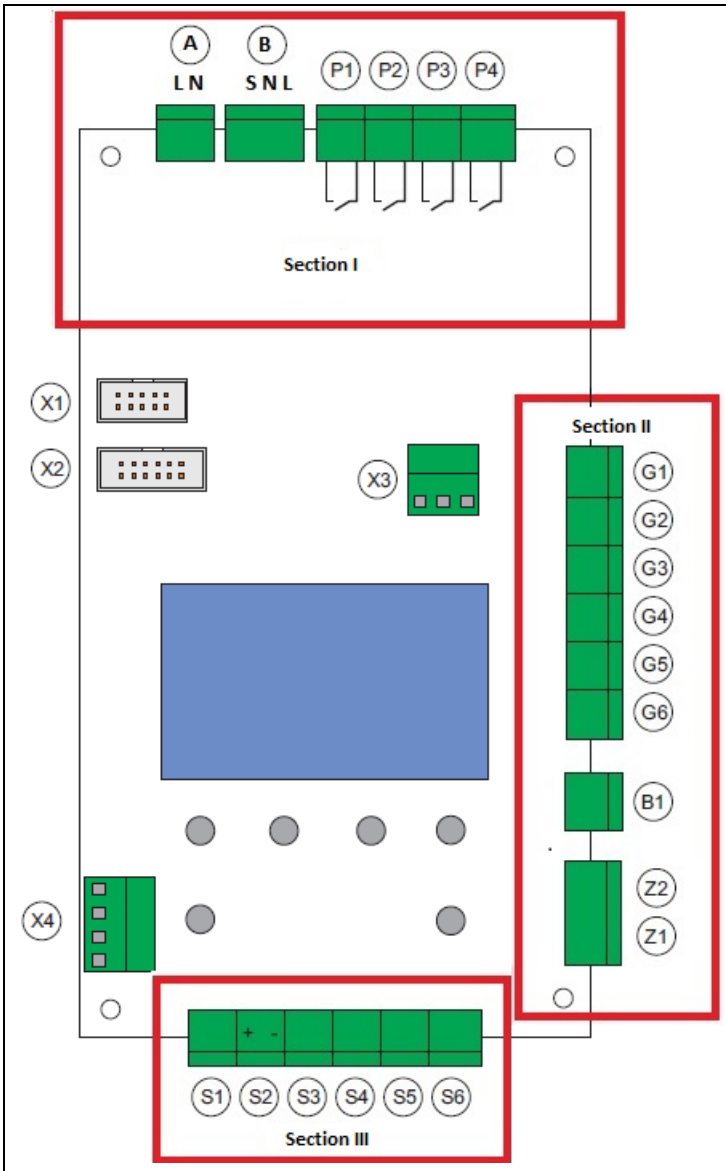
c) The boiler must be connected to the fixed electrical installation by a device which allows disconnection from the power supply at all poles with a distance between contacts of not less than 3 mm.

6.4. The use of an residual current circuit breaker is required (if the home electrical installation is not already equipped with one), and the corresponding cross-sections of the supply lines and the required fuses for the installation can be found in the technical data table (page 5).

6.5. It is recommended that the connection of the weather and room sensors is carried out by an authorised electrician, before the first start-up of the unit.

6.6. When the unit is correctly connected to the electrical system, switch the isolating switch to the ON position. The diode on the control panel should light up red, indicating that the boiler is ready for operation.

7. Connection strips – control board overall scheme:



Section I:
A – Power supply for automation control 230V

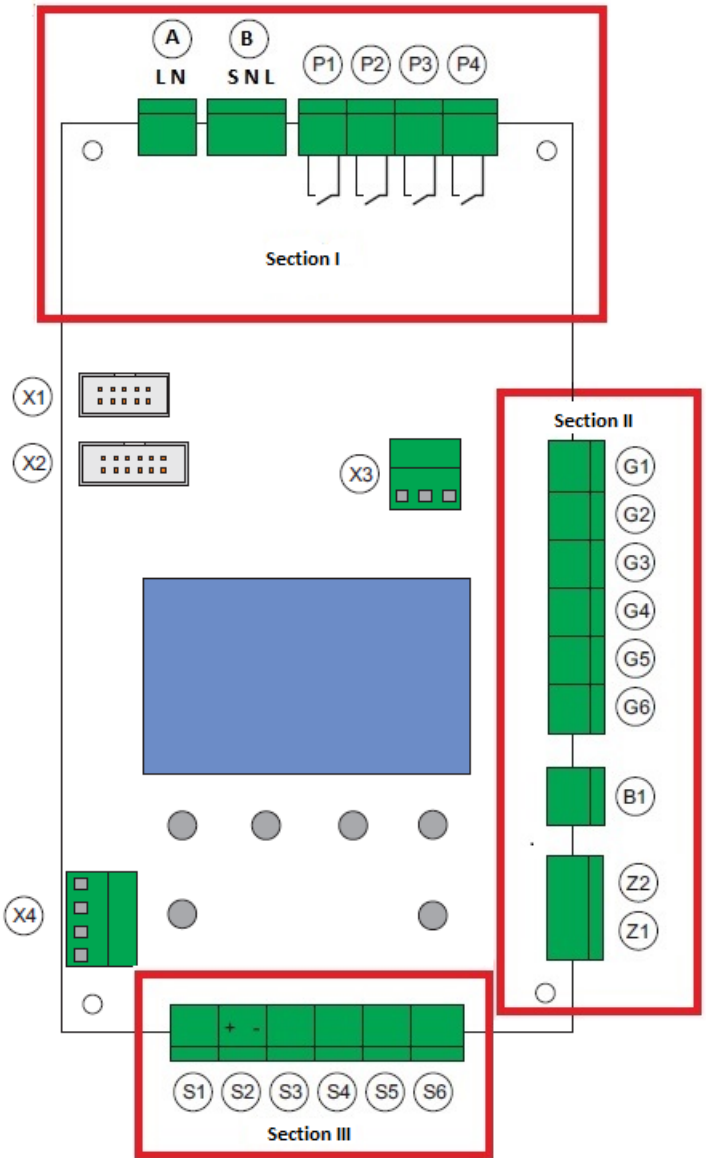
B - Electro-valve (D.H.W. package)
P1 – Low loss header pump / buffer charge
P2 – Boiler pump
P3 - circulation pump DHW
P4 - programmable universal output

Section II:

G1-G6 - Outputs for heaters relays (factory settings)
Z1 – Outside temperature controller (room thermostat - no voltage). If working without thermostat - install jumper.
Z2 – external D.H.W. regulator

Section III:

S1 - boiler sensor in the body
S2 - analogue input 0-10 V
S3 – Low loss header sensor
S4 – Sensor D.H.W.
S5 – Room sensor
S6 – Weather sensor



BACK

X1 – radio receiver socket
X2 – Internet module socket
X3 – Autostop function
X4 – Communication between boilers - cascade Division - Battalion NET.

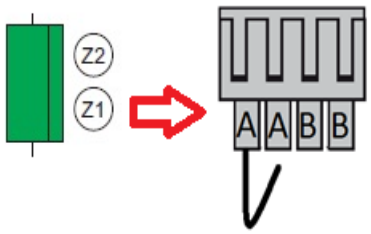
8. Boiler start-up:

After proper connection of the boiler to the central heating system and electrical installation it is possible to start it up. The device is switched ON by pressing and holding for about 3 seconds the button located in the lower left corner of the control panel. The boiler diode should change colour from red to green. The display will then show the language selection menu. After selection and confirmation, the vent bar will appear. This is the time during which you should check all the venting points of the central heating system and vent them again if necessary.

Remember! When operating the boiler control panel: the button with a square symbol, located on its lower right-hand side, allows you to enter the particular menu of the unit - *ENTER*. On the other hand, the button with the circle symbol with a dash on its lower left-hand side allows you to exit the particular menu option - *ESCAPE.*

Remember! Only a properly vented heating system with the correct pressure (1.5 bar when the fluid is cold) will ensure proper and safe operation for many years. These rules must be observed when using the boiler.

Figure No. 3 - Scheme of connection of the jumper in the Z1 strip.

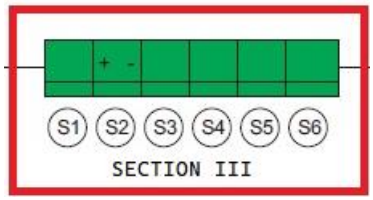


In order to start up the boiler heaters in the next step, the circuit in connection strip Z1 - section II must be closed (see point 7). For this we use a jumper wire which is factory plugged into the first PIN of the Z1 terminal block. Remove the cube from the strip, insert the other end of the jumper into the second free PIN and screw it in place. Insert the cube into the strip again. **The jumper is used for temporary operation of the boiler - resulting in faster wear of components and unnecessarily increased heating costs.**

Remember! The boiler is an electrical device. Be careful when operating it. When carrying out any work with the boiler casing removed, don't operate with the voltage switched OFF.

9. Assembly of wired weather and room sensors.

Fig. 4 - connection of the jumper in the Z1 strip.

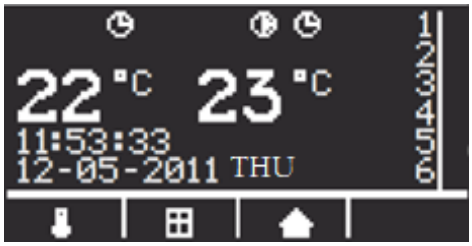


S5 – location of the room sensor
S6 – location of the weather sensor

The boiler is equipped with wired room and weather sensors. The cable is not included. The 2-core LGY cable (flexible cable) is used to connect the sensors to the boiler. The wire of the room sensor is plugged into terminal S5 and the wire of the weather sensor into terminal S6 of section No. III (see point 7).

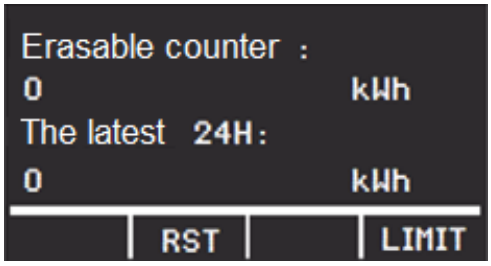
The weather sensor is mounted on the external north wall of the building, approximately 2 metres above ground level. Ideally, the selected area should be out of the sun. The room sensor is mounted at a height of approx. 150 cm on an internal wall of the building; it must not be covered by furniture (free air circulation must be ensured) or exposed to sunlight; it should not be located in close proximity to a radiator or any heat-emitting devices (TV, refrigerator, etc.).

10. Energy limit setting.



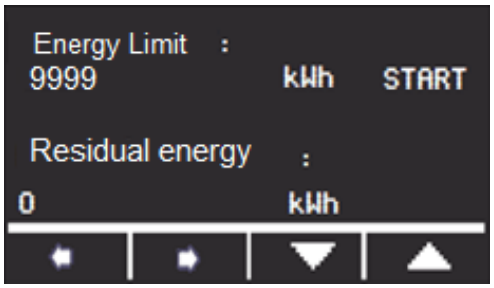
From the home screen position, press ▢.

Once the above is done, you go to the Main Menu. Using the down arrow, navigate to the option: Energy consumption and press ▢.



In the Boiler Working Count window, the LIMIT option is visible (bottom right-hand corner of the window). The LIMIT window is activated by pressing the Up arrow.

In the limit window, we set the energy value between 0 and 9999 kWh. Use the Left and Right arrows to navigate between the visible digits, while the Up and Down arrows change the value.



Once the limit has been set, move to the right with the arrow and highlight the word Start. Continue by pressing ▢, then under the heading: Energy remaining: a preset limit will appear instead of zero, which will decrease as the energy is consumed.

13. Connection of the D.H.W. pack (additional option).

The connection scheme for the D.H.W. pack and external D.H.W. controller is shown in Figure 10.

Figure 11 - Connection of D.H.W. pack and external D.H.W. controller.

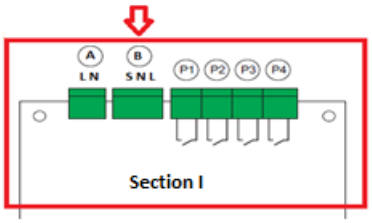
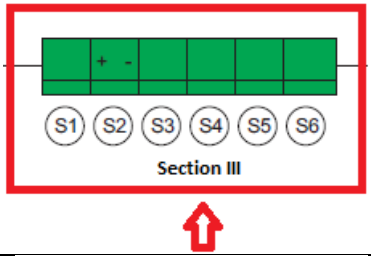
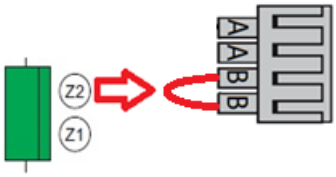
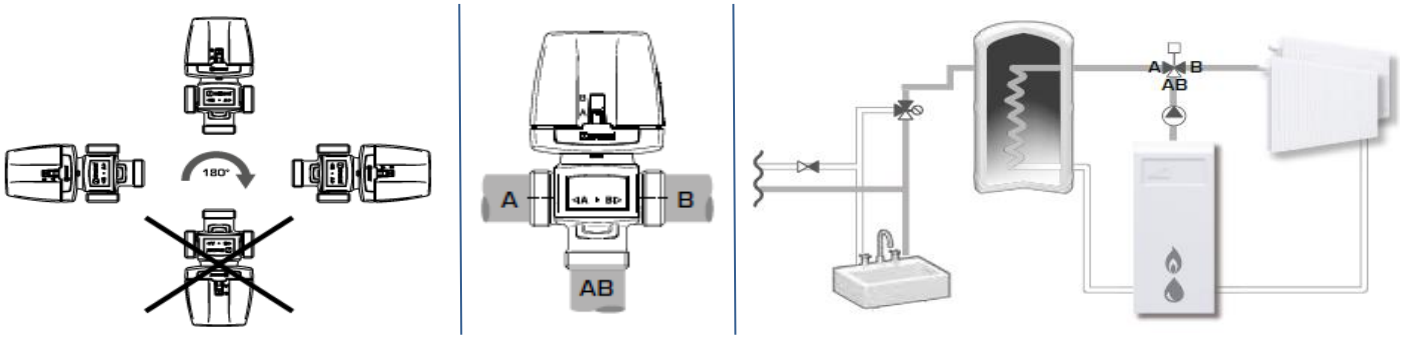
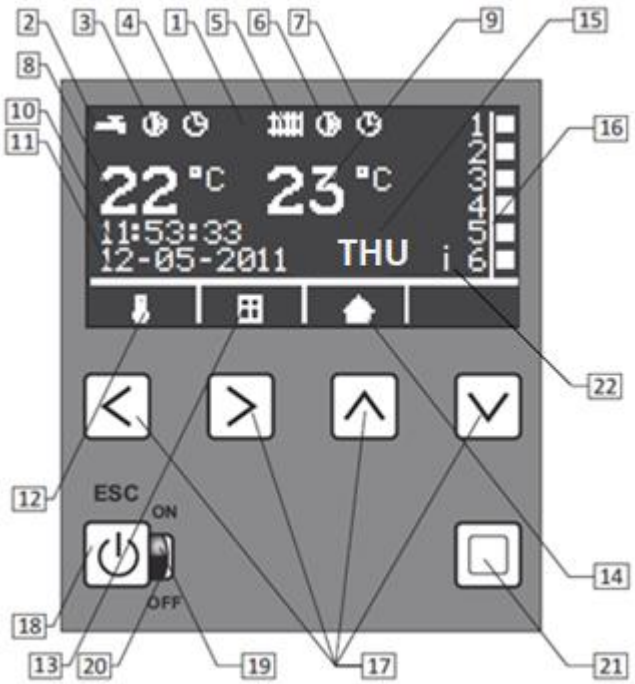
	The solenoid valve is connected to the **B**-strip - black control wire (**S**), blue neutral (**N**) and brown line (**L**).
	S4 - place of connecting the D.H.W. sensor
	Z2 - place of connecting an external DHW regulator. **If you do not plan to connect the above-mentioned device, the pins of Z2 should be connected with a jumper.**
	The boiler sold from the factory with the DHW package has the DHW function activated. - no change of settings is required. If you purchase the package separately, connect the DHW sensor to the appropriate terminals and do the same with the electro-valve wires (see above). Activation of the DHW function will be signalled by the DHW temperature appearing on the start screen. The warranty only covers dedicated packages available from Elterm.

Figure 12 - Three-way valve - mounting position.



14. Control board.

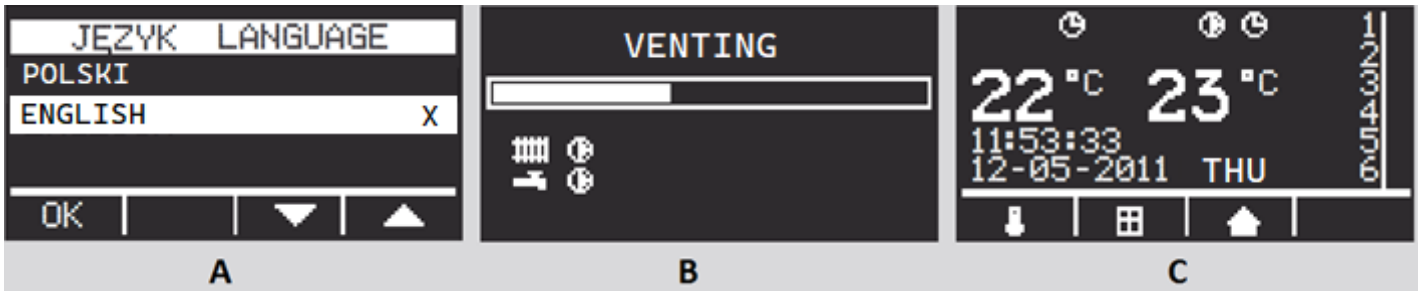
1. LCD display
2. D.H.W. working indication.
3. D.H.W. pump indication – active
4. D.H.W. programme indication – active
5. C.H. working indication.
6. C.H. pump indication – active
7. C.H. programme indication – active
8. Current C.H. temperature
9. Current D.H.W temperaturę
10. Hours
11. Date
12. Indication – temperature setting for C.H. & D.H.W
13. Weather control indication.
14. Room temperature indication (option)
15. Day of week
16. Relay activation status
17. Function buttons (designation ←→↑↓)
18. On/Off button and back
19. Green diode - boiler ON
20. Red diode - boiler OFF
21. Selection button
22. Indication of Internet module connection



15. Programming.

The boiler should be connected in accordance with the sections **Hydraulic assembly** and **Electrical assembly** and the valves on the radiators must be fully open during start-up.

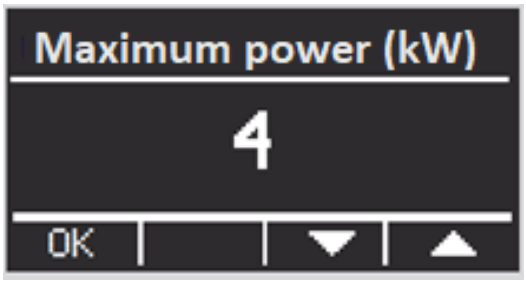
Initial settings *(pressing a few times ⏻ returns to the main menu)*.



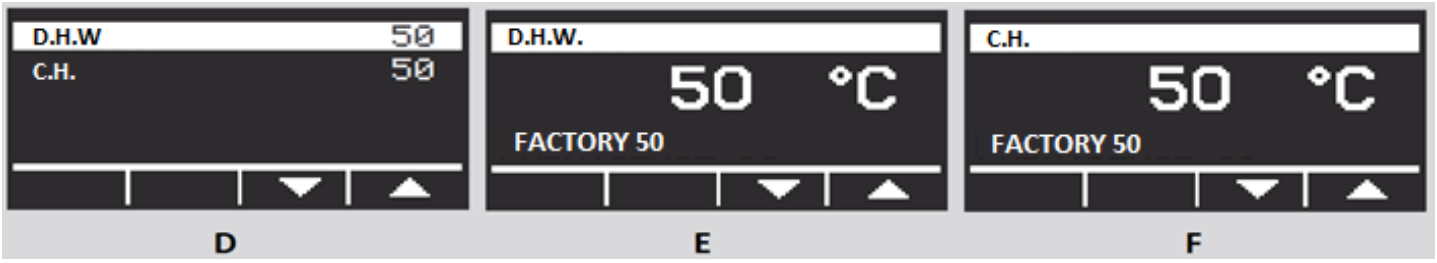
The boiler is switched ON and is in stand-by mode - red diode is visible (no. 20 on the display) - **recommended off-season status**. Press for 5 seconds, which should result in the green diode (no. 19) lighting up. With ↑↓ select one of available languages (A) (Polish, English, French, German - depending on software version) and confirm the selection with ←. Then the display shows "venting" (**B**). A progress bar counts down the 5 minutes of time needed for the installer to perform the venting of the boiler, pumps and the entire central heating system. This function cannot be passed. During the process the central heating pump is switched ON. (additionally the D.H.W. pump for the **Marshal AsDC-W**), the heaters cannot then be switched ON. The time of 5 minutes should be odpowiedni na dokładne odpowietrzenie kotła, pompy i układu C.H., gdyby

however, this was not the case - the whole procedure must be repeated by switching the electric boiler OFF and ON again.

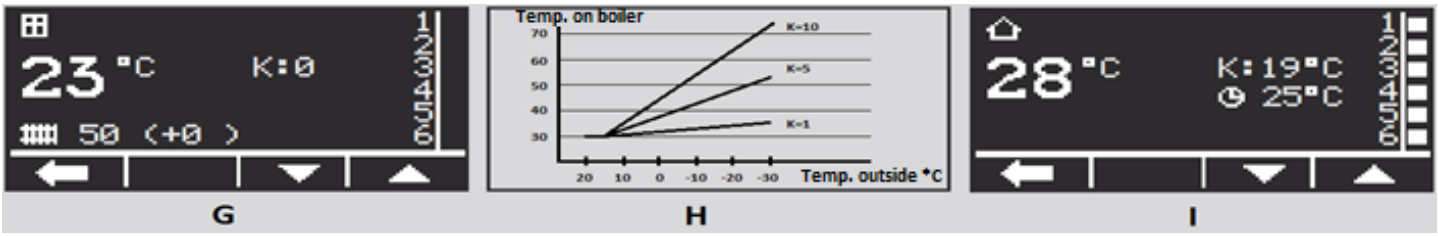
The boilers **Captain AsBN-W**, **Colonel AsZN-W** and **Hetman AsHN** are equipped with a modulating heating output function: the 15kW boiler can be reduced to 4/6/9kW, the 18kW boiler to 4/6/12kW and the 24kW boiler to 12kW. The selection can be made at the stage of initial boiler start-up or the set operating parameter can be changed at a later date (1.14 Maximum power (kW)).



The display changes to start-up screen mode (**C**).



Temperature setting for **C.H.** and **D.H.W. (for Marshal AsDC-W and D.H.W. package)** - the function is accessed from the start screen **(C)** by pressing the ←, by using ↑↓ select the temperature for C.H. and D.H.W. (**D**). By pressing ▢ enter the settings for the selected temperature (**E**)(**F**), then by using ↑↓ increase or decrease the parameter value. Temperatures are saved by pressing ⏻.



Weather curve setting (G) - the function is accessed from the start screen **(C)** by pressing the →, by using ↑↓ select a weather curve from 0 to 10. The curves operate from 15°C downwards. In order for them to function correctly, set the central heating temperature, e.g. 30°C, and select the curve number, with zero indicating no weather correction. In standard operation, the boiler maintains the central heating temperature set in the menu, increased by the correction value according to the table below.

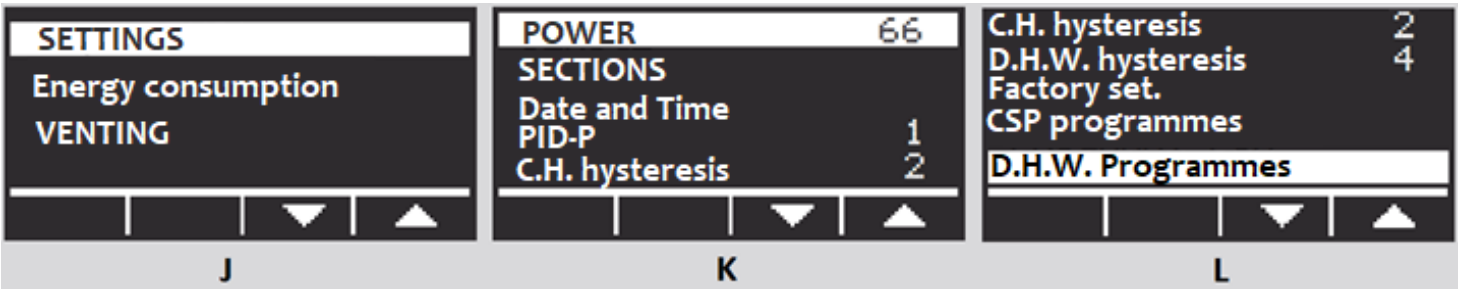
For every degree of outside temperature below 15°C, the weather correction is:									
for 1	0,1°C	for 3	0,3°C	for 5	0,5°C	for 7	0,7°C	for 9	0,9°C
for 2	0,2°C	for 4	0,4°C	for 6	0,6°C	for 8	0,8°C	for 10	1,0°C

K - indicates the curve number, D - indicates the start temperature of the weather correction.

Example (**H**): Curve set to 5 with a central heating temperature at the boiler of 30°C. For an outside temperature above 15°C, the boiler will maintain a constant temperature of 30°C; for an outside temperature of 5°C, the correction will be 10 x 0.5 = 5°C, so the boiler will maintain 35°C; for an outside temperature of -5°C, the correction will be 20 x 0.5 = 10°C, so the boiler will maintain 40°C and so on.

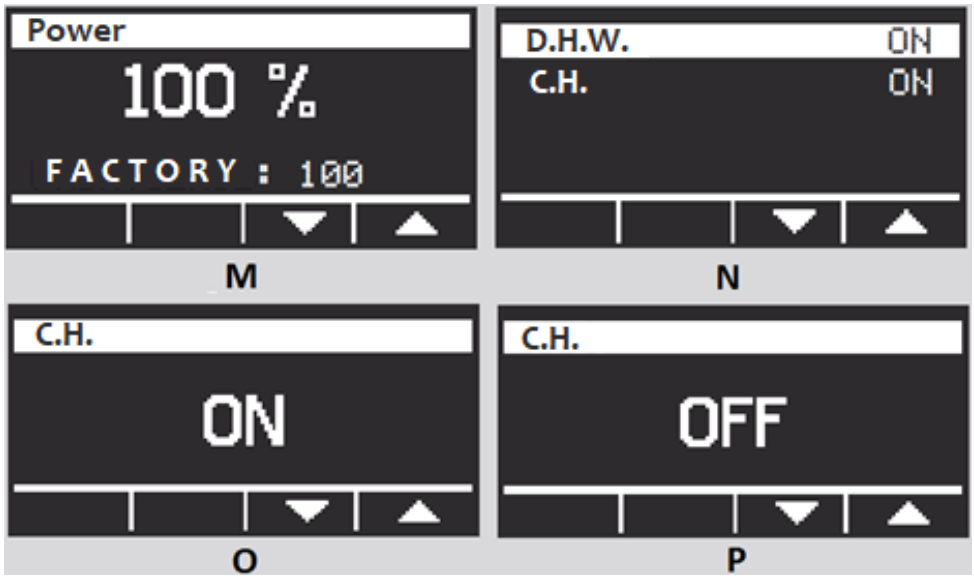
Room temperature setting on the boiler (I) – enter this function from the start screen **(C)** by pressing ↓, using ↑↓ changes the set room temperature in the range 5-30°C.

Detailed settings (pressing several times ⏻ *returns to the main menu)*



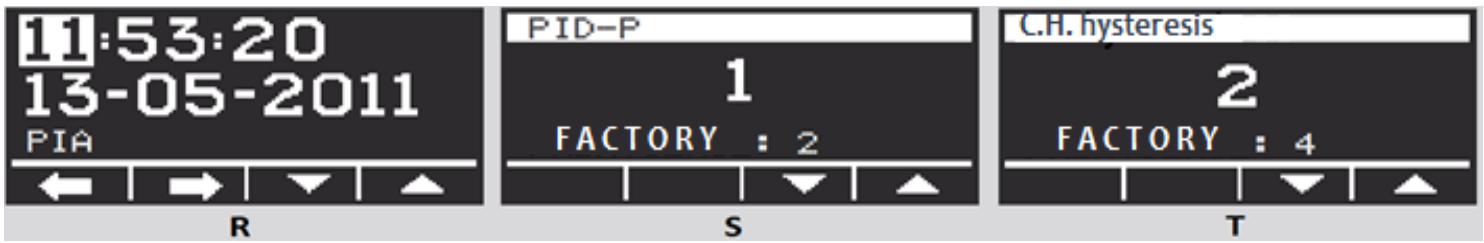
Structure menu (J, K, L):

1. Settings
   - 1.1. Power
   - 1.2. Sections
   - 1.3. Date & time
   - 1.4. PID-P
   - 1.5. C.H. hysteresis
   - 1.6. D.H.W. hysteresis
   - 1.7. Factory settings
   - 1.8. CSP programmes
   - 1.9. D.H.W. programmes
   - 1.10. Circulation pump
   - 1.11. Pump time
   - 1.12. Calibration
   - 1.13. Internet
   - 1.14. Max. power (kW) – option
   - 1.15. Battery (cascade operation)
2. Energy consumption
3. Venting



1.1. Settings/Power – on the start screen **(C),** press the ⏻ by going into SETTINGS **(J)**, select Power **(K)** and once again press ⏻. By using ↑↓ changes the boiler power in the range 33/66/100% **(M)**. The preset power is saved by pressing ⏻.

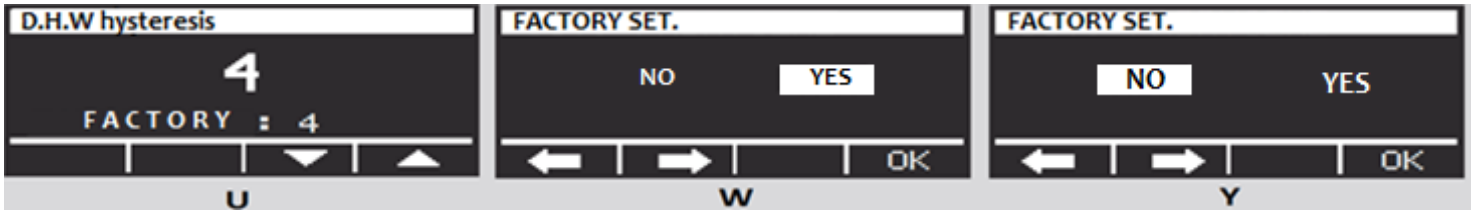
1.2. Settings/Sections – on the start screen **(C),** press the ⏻ by going into SETTINGS (J), select Sections **(K)** and once again press the ⏻. By using ↑↓ switch between central heating and domestic hot water. **(N)**. By pressing ⏻ enter the selected section and using ↑↓ toggle between active mode (ON)**(O)**, inactive mode (OFF)**(P)**. The parameter is saved by pressing ⏻



1.3 Settings/Date and time - on the start screen **(C)**, press to enter into SETTINGS **(J)**, select Date and time **(K)** and press again. Use ←→ **(R)** to toggle between time, date and day of the week, and ↑↓ to change parameter values, which are saved by pressing . Setting Auto to 1 causes the time to update automatically. This applies to boilers connected to the Internet.

1.4 Settings/PID-P (Heating dynamics) - on the start screen **(C),** press the button ▢ by entering SETTINGS **(J)**, selecting PID-P **(K)** and pressing the button again ▢. By using ↑↓ **(S)** changes the value of a parameter which is saved after pressing the ⏻. **Attention:** *if the boiler takes a very long time to reach the set temperature - set the parameter to 4 or 5, otherwise select 1 or 2.*

1.5. Settings/Hysteresis central heating - on the start screen **(C)** press ▢ by entering SETTINGS **(J)**, select the central heating hysteresis. **(K)** and once again press ▢. By using ↑↓ **(T)** changes the value of the parameter (range 1-2-3-4-5-6), which is saved by pressing the ⏻.



U W Y

1.6 Settings/Hysteresis D.H.W. - on the start screen **(C)** press ▢ enter into SETTINGS **(J)**, select D.H.W. hysteresis. **(L)** and once again press ▢. By using ↑↓ **(U)** change the value of the parameter (range 1-2-3-4-5-6, 6 is recommended), which is saved by pressing ⏻.

1.7 Settings/Factory - From the start screen **(C),** press the ▢ Entering into SETTINGS **(J)**, select Factory settings **(L)** and once again press the ▢. By using ← **(W/Y)** we abandon the factory settings (NO), → we agree with them (YES), ↑ activates settings. ⏻ - remember the choice.

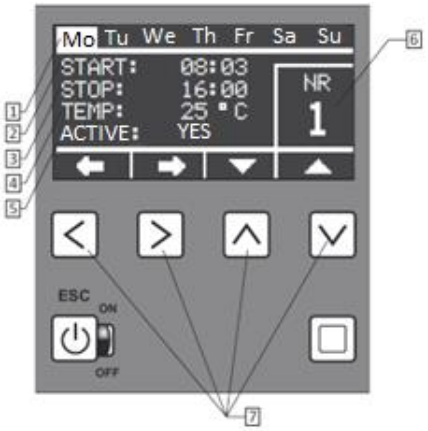
Factory Settings

D.H.W. temperature..... 50°C	C.H. section..... ON
C.H. temperature..... 50°C	PID-P..... 3
Boiler power..... 100%	C.H. histeresis..... 6
D.H.W. section..... ON	D.H.W. histeresis..... 7

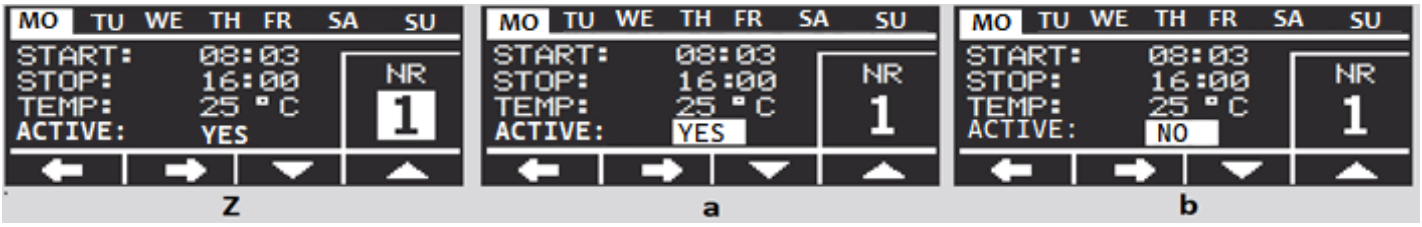
Weekly programming on the boiler and D.H.W. time programming.

Weekly programming on the boiler and D.H.W. time programming makes it possible to programme and maintain the set temperature at any desired time interval, with an accuracy of one minute. The clear menu and backlit display make the programming easy to use. All settings are stored in a non-volatile memory and are not deleted even if the power supply to the boiler is completely switched OFF. The electronic system has 9 independent programmes, each of which allows the desired temperature to be programmed in any time period. When two temperatures from different programmes overlap, the more comfortable one - the higher one - is always selected. This also applies to the priority of the programme settings over the preset **(F)**.

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 days: **1** (of choice)
V	MO	TU	WE	TH	FR			Active days: **working**
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. Days of week, **2.** Programme start, **3.** Programme stop, **4.** Temperature setting: 20-70°C, **5.** Active: yes/no, **6.** Programme number: 1 to 9, **7**. Function keys



1.8. Settings/Programmes CSP - on the start screen **(C),** press the ▢ by going into SETTINGS **(J)**, selecting CSP Programs **(L)** and once again pressing the ▢. By using ←→ **(Z)** toggle between the parameters (days of the week, operating hours, temperature, activity), and with the ↑↓ change the parameter values, which are saved by pressing the ⏻.

Attention! The boiler beyond the operating hours set in the programmes, maintains the temperature set in general - according to the room temperature setting on the boiler (I).

1.9 Settings/ D.H.W. programs (for **AsDC-W** and **D.H.W. package) -** on the start screen **(C),** press ▢ enter into SETTINGS **(J)**, select D.H.W. Programmes **(L)** and once again press the button ▢. By using ←→ **(Z)** toggle between the parameters (days of the week, operating hours, temperature, activity), and with the ↑↓ change the parameter values, which are saved by pressing the ⏻.

Active/inactive programme - each programme can be temporarily deactivated. To do this, select at the active parameter in the CSP or D.H.W. programmes: "NO" **(b)**. To reactivate the programme, set the option to "YES" **(a)**.

1.10. Settings/Circulation pump - on the start screen **(C),** press the ▢ by enter into SETTINGS **(J)**, select *Circulation pump* and press the button again ▢. By using ←→ toggle between the parameters (days of the week, operating hours, temperature, activity), and with the ↑↓ change the parameter values, which are saved by pressing the ⏻.

1.11. Settings/Pump time - on the start screen **(C),** press the ▢ by enter into SETTINGS **(J)**, select *Pump time* and once again press ▢. By using ↑↓ changes the value of a parameter which is saved by pressing the ⏻. It means constant operation of the pump.

1.12. Calibration - on the start screen **(C),** press the ▢ by enter into SETTINGS **(J)**, select *Calibration* and once again press the ▢. By using ↑↓ changes the value of the temperature correction parameter for the room or weather compensator, which is saved by pressing the ⏻.

1.13. Internet – on the start screen **(C)**, press ▢ by enter into SETTINGS **(J)**, select *Internet* and once again press ▢. By using ↑↓ enter the application ID and the possibility to change the PIN code, the data is saved by pressing the ⏻. For a detailed procedure, please refer to the separate instructions for the web module.

1.14. Maximum power (kW) - optional. On the start screen **(C),** press the ▢ by entering into SETTINGS **(J)**, select Maximum power and once again press the ▢. By using ↑↓ power selection, the data will be saved by pressing the ⏻.

2. Energy consumption - on the start screen **(C)** press the ▢ select *Energy consumption* (J). By pressing ▢ once again, the energy consumption counters appears on the screen for the electric boiler **(C)**. By using → reset the erasable counter - displays the energy consumed in kWh from the start of measurement to any time within a maximum of 24 hours. After 24 hours, the operating counter stops automatically. **LAST 24H -** this is a counter indicating energy consumption over the last 24 hours, updated at 20 minute intervals. The LIMIT option is selected by pressing the ↓, It allows you to set the maximum amount of kWh that the boiler will consume and then switch OFF. An indication of an activated option is the flashing word *LIMIT* on the main screen. ⏻ - return.

3. Venting - this function enables additional venting of the entire C.H. and D.H.W. system without turning OFF the boiler. Correct venting of the system ensures proper operation of the entire system and increases its lifetime. This function provides an additional check on the correct operation of the central heating and D.H.W. pumps. On the start screen **(C)** press ▢ select *VENTING* **(J)**. Press ▢ once again, the DHW/CH options appears on the screen. **(D)**, and with ↑↓ change the ON/OFF parameter values **(E)**, which are saved by pressing the ⏻.

Elterm's boilers are equipped with an Anti-Stop function. The automatics switches the pump on for 1 minute every 14 days to prevent the pump impeller from seizing. The AntiStop function operates independently of the ON/OFF status. During the off season it is recommended to leave the boiler in the OFF mode (red diode visible) - energy consumption in this mode is only 0.5W!

Do not remove the boiler housing while it is energised. If the boiler is switched ON without water, it must be allowed to cool down, filled with water and switched ON again. Never pour cold water over the hot heaters! Vent the central heating system, in particular the central heating pump, before the next heating season.

EC declaraion of conformity no. 2020/11a

Manufacturer: Elterm M.M.Kaszuba Sp.J, ul. Przemysłowa 5, 86-200 Chełmno

Product: Electric central heating boiler

The object of the declaration: Electric central heating boiler

Model: Uhlan (AsPC), Uhlan-SHE (AsPC-S), Corporal (AsP), Sergeant (AsBN), Major (AsZN), Brigadier (AsD), Ensign (AsC), Captain (AsBN-W), Colonel (AsZN-W), General (AsD-W), Marshal (AsDC-W), Lieutenant (AsC-W), Hussar (AsHZ), Commander (AsHN), Baterry (AsBII), Battalion (AsBIII), Division (AsBIV), Mobile (AsMB), Mobile PRO (AsMB PRO)

Power: 4kW, 6kW, 9kW, 12kW, 14kW, 15kW, 18kW, 21kW, 24kW, 27kW, 30kW, 33kW, 36kW, 39kW, 42kW, 45kW, 48kW

The designated products comply with the regulations of the following directives:

2009/125/UE – Ecodesign directive

2011/65/UE – RoHS directive

2014/30/UE – EMC directive

2014/35/UE – Low voltage directive

Harmonized standards and regulations used to which conformity is declared:

PN EN 60335-1:2012+A1:2019+A2:2019+A11:2014+A13:2017+A14:2020	PN EN IEC 61000-3-11:2020
PN EN 60335-2-35:2016+A1:2020	PN EN 61000-3-12:2012
PN EN 62233:2008	PN EN 55014-1:2017+A11:2020
PN EN 61000-3-2:2019	PN EN 55014-2:2015
PN EN 61000-3-3:2013+A1:2019	(UE) 811/2013

I hereby declare that products mentioned in this declaration comply with the requirements of EU legislation.

Chełmno, 2020.10.01	Tomasz Jeziorski
place and date	owner

Guarantee card

Boiler EWB: Serial number: Date of production: Date of sale:	Seller's stamp and signature

Stamp of the hydraulic firm assembling the boiler	Stamp of the electrical firm assembling the boiler	I declare that I have read and understood with the conditions of guarantee and assembly. I accept.
Without the above stamps and signatures, the guarantee is invalid		

Warranty conditions:

1. The guarantee for the efficient operation of the device is provided for a period of 24 months.
2. The guarantee expires if modifications are made to the product without the manufacturer's consent, or if the assembly or operation of the product does not comply with the operating instructions and guarantee conditions..
3. Repairs under warranty shall be carried out by the manufacturer or his authorised service centres..
4. A guarantee filled in incompletely is invalid.
5. If the service technician discovers that the device is not working due to the user's fault (e.g. poorly made electrical installation, vented central heating system, etc.) or the warranty is invalid, the cost of repair and travel expenses will be borne by the customer.
6. Failure by the user to comply with the service technician's recommendations stated in the warranty repair protocol will result in the suspension of the warranty until the recommendations have been carried out.

Service technician's stamp, brief description of the fault and recommendations for the user.

After the service technician has carried out the warranty repair, the coupon below should be cut out and given to the service technician.

Warranty coupon I

.....
Details and address of the device owner

.....
Contact number

.....
Date of production of the device.

Warranty coupon II

.....
Details and address of the device owner

.....
Contact number

.....
Date of production of the device.

The most common errors and their resolution:

Symptoms	The reason	What to do?
1. When the boiler is connected to the mains (main power supply), not a single diode lights up.	Boiler electrical power supply failure Tripping of the thermal protection – limit (100°C) Activation of automatic boiler protection Damage or mechanical interruption of control wires in the boiler	Check mains supply Check condition and continuity of wires
2. Tripping of the residual current circuit breaker (external).	The electronic protection of the boiler triggers the circuit breaker	Wait until the water in the boiler has cooled down and check the cause of the overheating: - check the pressure in the central heating system. Check the pressure in the central heating system (aeration) - vent the system and the central heating pump. - check that the central heating pump is in working order - clean the central heating filter (if present in the system) - check the valves on the radiators are open - check the power of the radiators - reduce boiler power
3. There was a rapid increase in temperature (in the display) when the boiler was switched ON.	Lack of central heating circuit Boiler power too high for the power of the radiators	Wait until the boiler has cooled down and activate the 95°C thermal protection. This is located at the top of the heating body and is housed in a red heat shrink sleeve. See figure 14 below.
4. When the main switch is turned ON, the diodes light up, the pump has completed the venting cycle, but the boiler does not switch ON the heating section after 300 seconds.	Room thermoregulator terminals not screwed on properly (jumper) or jumper terminals broken (bridge)	Correct the screwing of the thermoregulator terminals (jumpers)
	Defective thermoregulator or cable connecting it to the boiler	Check the batteries in the thermoregulator Check the thermoregulator (short circuit) Check the connection cable between the boiler and thermoregulator
	Temperature reached, no need to heat	Wait for the need to heat
5. The following message appears on the display: **E01** – sensor fault - short circuit (resistance too low, e.g. sensor wire crushed) **E02** – sensor fault - resistance too high (sensor not connected, broken sensor wire, terminals on sensor strip not tightened)	No temperature measurement, defective sensor (temperature measurement sensor in the boiler)	Check that the sensor wires are screwed correctly to the terminal strip, replace the sensor if necessary. Check for damage on the cable.
6. The following message appears on the display: **E03** – no room thermoregulator	No room controller connected - constant boiler operation for 96h	A jumper is connected under the connection strip of the room thermoregulator - any voltage-free thermoregulator should be connected instead.
7. The following message appears on the display: **E04** – temperature rising too quickly **E05** – temperature limit exceedance	See point 3	See point 3 The E05 message will disappear once the temperature has decreased to a safe level.
8. When the main switch is turned ON, the diodes light up, but the buttons cannot be controlled.	Unscrewing of the electronic board from the main board (break occurs)	Tighten the retaining nuts (from below)
9. Tripping of the main fuse supplying the boiler.	Fuse amperage too small	Replace fuses with larger ones Disconnect some heaters
	Possible short circuit of one of the heaters	Find the faulty heater, disconnect it and replace it after the heating season

Reporting a complaint.

To make a complaint about Elterm products, please follow the procedure below:

1. Download the complaint form located on the website www.elterm.pl service tab.

2. Fill in the downloaded claim form.

3. Send the completed claim form to the mailbox: serwis@elterm.pl.

4. Attach a scan or photograph to the e-mail:

a) proof of purchase, e.g. invoice

b) guarantee, which is the last page of the manual, including the signature of an authorised fitter for the electrical and plumbing installation.

5. In order to facilitate the processing of the complaint, please attach photos or a video showing the incident to the email.

Failure to comply with the requirements of the above procedure may result in the complaint being refused for processing.

Worth to check...

Before you call for service please:

refer to the enclosed instruction manual,

watch the instructional video below,

check that the central heating system is completely filled with water and well vented,

check that the jumper of the room thermoregulator is closed

check the fuses on the power supply and whether current is flowing to them (possible failure of the main fuse),

check the fuse of the electronic system on the boiler,

check the venting of the circulating pump,

open thermostatic valves or ball valves on radiators (the setting temperature on the radiator valve in the room where the room thermoregulator is located must be higher than the thermoregulator temperature - it is recommended to open the thermostatic head to the maximum temperature),

check patency of the filter,

ensure adequate pressure in the closed central heating system (at least 1.5 bar with cold water),

check that the temperature limiter on the boiler body is not pressed in (operating manual).

Important:

If you are unable to download the ELTERM MONITOR web app from the GOOGLE PLAY shop, it is available at the following address:

https://costerowniki.pl/pl/p/Aplikacje-na-telefon/61

The lack of visibility of the application in question in the GOOGLE PLAY shop is due to the fact that they only support phones with the latest versions of the Android system. This situation is not dependent by Elterm.

Environmental protection and disposal

Environmental issues are very important to Elterm. We carry out tasks resulting from the Environmental Protection Act and other relevant legislation.

Packaging

The materials used as packaging are all recyclable. When disposing of them, comply with current local regulations. Plastic bags, cardboard or polystyrene and other materials used should be kept away from children, as they may present a danger to them.

Waste electric and electronic equipment

The symbol shown means that this product must not be disposed of, placed with other waste, but must be taken to your local separate waste collection point for take-back, recycling or disposal. This is free of charge. This applies to countries with legal regulations related to electronic waste management, e.g. the "European Directive 2012/19/EC on waste electrical and electronic equipment". The regulations set the framework conditions applicable to the return and recycling of waste electronic equipment in each country. All electrical and electronic equipment may contain hazardous substances, and care must be taken to recycle them in a sustainable manner. These measures are intended to minimise the risk of potential harm to the environment and human health and contribute to the conservation of natural resources. They also make it possible to recover valuable resources. Incorrect disposal of waste is subject to penalties under the relevant legislation. For further information about recycling and disposal of waste electrical and electronic equipment, please contact the relevant local authority, waste disposal facility or the retailer from whom you purchased the product.

(BDO registration number – 000010881)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