

EWA 20 EWA 24

CONDENSING COMBI BOILER
USER MANUAL

EWA 20 EWA 24



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1. DEAR WARMHAUS CUSTOMER

We congratulate you for preferring the Warmhaus combi to maintain your heating and hot use water comfort for long years and thank for your trust. Warmhaus combi, manufactured in accordance with European Union standards and advanced technology, are also being imported to many countries. You can benefit from our Authorized Technical Service network having occupational competency certificate for all kinds of ordinary maintenance requirements for this product manufactured with rigorous studies. Our Authorized Services guarantee protection of your device performance as they always provide original spare parts service. Carefully read this guide in order to use the combi in an economic, comfortable and efficient way and keep as a source of application.

In order to ensure efficient use, we initially recommend you to have the installation performed by a certified dealer experienced and competent in installation by the local gas authority.

1.1. GENERAL WARNINGS

Guide Book is an inseparable and integral part of the product and should be delivered to the new user when the device is transferred. The aforementioned book should be carefully protected and used as well as be applicable when required as it contains important information regarding installation.



Radiator and DHW installations should be engineered and produced by a competent and certified engineering company in accordance with measurements defined based on laws by considering legal regulations in force.



Installation and Maintenance operations should be performed by the expert personnel having adequate technical knowledge in installations sector and occupational competency certificate in accordance with legal regulations in force. As the result of a false installation, dangers may occur which the manufacturer company cannot be held responsible for and may damage people, other live beings (animals, plants) or commodities.



Natural Gas Installation Project; One of the dealers authorized by a gas company located at your city should be preferred for performing project and etude studies.



In order to enable use of the combi with LPG tubes or LPG tanks, conversation of the combi should be performed by our authorized Warmhaus service. Project design and application for LPG use should be performed by the company supplying the tank in accordance with local and legal rules.

1.2. GENERAL WARRANTY CONDITIONS



The Manufacturer company shall not have any responsibilities within or out of the agreement scope due to failures arising from failing to follow legal regulations in force and standards and information given in this guide book (and information and instructions provided by the manufacturer under any circumstances) during installation, use or maintenance operations and device warranty shall also be void.



Only the authorized Warmhaus Service is authorized to make the electrical connection of Combi and supplying electricity to the combi.

The maintenance and repairs as the result of failure of the product within the warranty period due to material, production and installation errors shall be performed as free of charge without claiming any workmanship costs and spare part payments.

(Also See: 3.5. ISSUES REQUIRED TO BE TAKEN INTO CONSIDERATION BY USERS FOR WARRANTY CONDITIONS)



This device should only be used for its designed intended purposes (to be used in closed-circuit heater installation and production of open circuit domestic hot water production). All kinds of other uses are not suitable as well as may create a potential danger.

Manufacturer shall not be responsible for damages occurring due to interventions, false installation and initial starting performed by unauthorized persons and warranty scope shall be void. As the Combi is a device having heating system, domestic hot water, natural gas/LPG and electrical connections, do not make and have any interventions made without the authorized service.



Forbid any interference with a sealed component.



Device maintenance operations should be performed by the authorized and expert technical personnel, and



It is strictly forbidden to try to detect the gas leakage with the help of flame.



This device has been manufactured to be installed in the country given on the technical registry label. Performing the installation in countries other than the country written on the table may damage individuals, animals and commodities.

Combis bear CE mark in accordance with below given directives:

- GAR Regulation (EU) 2016/426
- Boiler Efficiency Directive 92/42/EEC
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU

The boiler was tested according to these Standards:

ČSN EN 15502-1+A1:2017, ČSN EN 15502-2-1+A1:2017, ČSN EN 55014-1 ed. 4:2017, ČSN EN 55014-2 ed. 2:2017, ČSN EN 60335-1 ed. 3:2012, ČSN EN 60335-2-102 ed. 2:2016, ČSN EN 61000-3-2 ed. 5:2019, ČSN EN 61000-3-3 ed. 3:2014, ČSN EN 61000-6-3 ed. 2:2007, ČSN EN 62233:2008.

Please visit the below given web site of Warmhaus for acquiring more detailed information regarding legal regulations on installation of gas fired heating devices: www.warmhaus.com

Manufacturer: WARMHAUS Isıtma ve Soğutma Sistemleri Tic. A.Ş. Bursa İşktepe OSB Mah. Park Cad. No:10 16140 Nilüfer-Bursa / Türkiye

WARMHAUS

Warmhaus Authorized Technical Service Centres maintain an assurance regarding quality and professionalism on that issue. WARMHAUS is not responsible for damages arising from repairs, part replacements and maintenances performed by third persons and companies and combi remains out of the warranty scope under such conditions.



WARMHAUS A.Ş. reserves the right to make all kinds of technical and commercial amendments without giving information and rejects all responsibilities depending on misspelling.

1.3. BOILER GAS CATEGORIES & DESTINATIONS

Designation: Used gas types & Countries						
Object Manufacturer			Type-model / Technical data		Mark (s) of conformity	
Boiler gas categories & destinations			Warmhaus all wall-hung boilers		granted	
Gas categories for Warmhaus boilers has been applied on CE certification on SZU Test / BRNO given below; - the appliance category(ies) in relation to the direct countries of destination has been specified EN 15502-1; GAR Certificate E-30-00300-18 product ID Nr. CE-1015CT0615 - the country(-ies) of destination, in accordance with EN ISO 3166-1; - the gas supply pressure in millibars, if several normal pressures can be used for the same gas group. They are indicated by their numerical value and the unit "mbar"						
Document for conformity approved by SZU test	Appliance Categories	Gas Type	Gas Inlet Supply Pressures	Used Gas	Ewa 20 Ewa 24	Countries of Destination**
YES	I 2H	Natural Gas	20 mbar	G20	Available	AT, BG, CH, CZ, DK, EE, ES, FI, GB, GR, HR, IE, IT, LT, LU, LV, NO, PT, RO, SE, SI, SK, TR
YES	I 2H	Natural Gas	25 mbar	G20	Available	HU
YES	I 2E	Natural Gas	20 mbar	G20	Available	DE, LU, PL, RO
YES	I 2E+	Natural Gas	20 mbar	G20	Available	BE, FR
YES	I 2E(S)	Natural Gas	20 mbar	G20	Available	BE
YES	I 2ELL	Natural Gas	20 mbar	G20	Available	DE
YES	II 2H3P	Natural Gas	20 mbar	G20	Available	CH, CZ, ES, GB, GR, HR, IE, IT, LT, PT, RO, SI, SK
YES	II 2H3+	Natural Gas	20 mbar	G20	Available	CH, CY, CZ, ES, GB, GR, IE, IT, LT, PT, SI, SK, TR
YES	II 2E+3+	Natural Gas	20 mbar 25 mbar	G20	Available	BE, FR
YES	II 2E+3P	Natural Gas	20 mbar 25 mbar	G20	Available	BE, FR
YES	II 2H3B/P	Natural Gas	20 mbar	G20	Available	AT, CH, CY, CZ, DK, EE, FI, GR, IT, LT, NO, RO, SE, SI, SK
YES	II 2E3B/P	Natural Gas	20 mbar	G20	Available	DE
YES	II 2ELL3B/P	Natural Gas	20 mbar	G20	Available	DE
YES	I 2L	Natural Gas	25 mbar	G25	Available	NL
YES	I 2E+	Natural Gas	25 mbar	G25	Available	BE, FR
YES	I 2ELL	Natural Gas	20 mbar	G25	Available	DE
YES	II 2L3P	Natural Gas	25 mbar	G25	Available	NL
YES	II 2L3B/P	Natural Gas	25 mbar	G25	Available	NL
YES	II 2ELL3B/P	Natural Gas	20 mbar	G25	Available	DE
YES	I 3+	Buthane Gas	28-30 mbar 37 mbar	G30	Available	BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, PT, SI, SK
YES	I 3B/P	Buthane Gas	30 mbar	G30	Available	BE, CY, CZ, DK, EE, FI, GB, GR, HU, HR, IE, IT, LT, NL, NO, RO, SE, SI, SK, TR
YES	I 3B/P	Buthane Gas	50 mbar	G30	Available	AT, CH, DE, FR, SK
YES	II 2H3+	Buthane Gas	28-30 mbar 37 mbar	G30	Available	CH, CY, CZ, ES, GB, GR, IE, IT, LT, PT, SI, SK, TR
YES	II 2E+3+	Buthane Gas	28-30 mbar 37 mbar	G30	Available	BE, FR
YES	II 2H3B/P	Buthane Gas	30 mbar	G30	Available	CY, CZ, DK, EE, FI, GR, IT, LT, NO, RO, SE, SI, SK
YES	II 2H3B/P	Buthane Gas	50 mbar	G30	Available	AT, CH, SK
YES	II 2E3B/P	Buthane Gas	50 mbar	G30	Available	DE
YES	II 2L3B/P	Buthane Gas	30 mbar	G30	Available	NL
YES	II 2ELL3B/P	Buthane Gas	50 mbar	G30	Available	DE
YES	I 3P	Propane LPG	37 mbar	G31	Available	BE, CH, CZ, ES, FR, GB, GR, HR, IE, IT, LT, NL, PL, PT, SI, SK, TR
YES	II 2H3P	Propane LPG	37 mbar	G31	Available	CH, CZ, ES, GB, GR, HR, IE, IT, LT, PT, RO, SI, SK
YES	II 2L3P	Propane LPG	37 mbar	G31	Available	NL
YES	II 2E+3P	Propane LPG	37 mbar	G31	Available	BE, FR

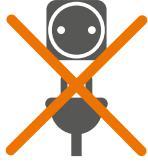
** EN 437+A1:2009. Codes for the representation of gases and names of countries and their subdivisions; Part 1: Country codes (ISO 3166-1:2006)

1.4. GAS LEAKAGES

HOW TO MOVE WHEN NATURAL GAS ODOUR IS DETECTED.



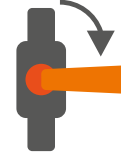
Do not use lighter - matches.



Do not light on and off lamps and other electrical devices or pull off the plug.



Ventilate the environment by opening doors and windows.



Close valves of devices operating with natural gas and your gas meter.



Do not use the door bell.



Do not use phones in case of a natural gas leakage. It may create sparks.



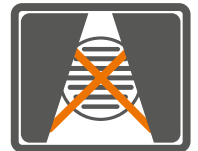
Immediately evacuate the place with gas odour.



Natural Gas Emergency Line from your neighbour or another suitable place.



Do not make any intervention on installation.



Never close culverts ensuring discharge of the gas from the environment in case of a natural gas leakage.

DURING EMERGENCIES



NATURAL GAS EMERGENCY



FIRE DEPARTMENT



AMBULANCE



POLICE

INFORMATION: You can visit web sites of local gas authorities and **NATURAL GAS EMERGENCY** sections.

Advice: Please take note local emergency phone numbers.

2. USER'S SECTION

2.1. GENERAL WARNINGS FOR USER

2.1.1. Use of Combi

If a gas odour is available in the environment, close home entrance line and gas valves of your combi or close the LPG tank valve or tube valve if bulk gas is used. Do not shut on-off electricity buttons and do not do anything those may create sparks. Call the gas company or Authorized Service. (See 1.3 GAS LEAKAGES, Page 6)

First start should be performed by the Warmhaus Authorized Service for your safety and preventing void warranty scope. Our Authorized Service will give you required information about use of combi after performing initial controls of your combi and starting for the first time.

Perform below given controls prior to starting to use:

- Ensure that radiator/heating system, tap water and gas valves located under your combi are open, the radiator installation pressure is between 1 - 1,5 bar on the manometer located under the Combi and system air is discharged,
- Gas is available in your gas line (you can control by igniting one of your gas ovens),
- Combi electrical fuse is open,
- No flammable materials and products are available near to the Combi,
- Exhaust gas flue set output is not blocked,
- If a room thermostat or control device is connected, ensure that it is at ON position.

If you will shut-off the combi for a long period, perform below written operations:

- Discharge the radiator installation water not containing anti-freeze,
- Close combi electrical fuse, gas valve, radiator and tap water valves!

If you will shut-off the combi for a short period, perform below written operations:

- Do not close combi electrical fuse, gas valve, radiator and tap water valves!
- Leave the Combi at Summer position and activate its Frost Protection function,

Shut-off the combi during maintenance and repair operations to be performed around exhaust gas discharge flues. After operations are completed, have the combi controlled by Warmhaus Authorized Service prior to starting the combi.

Follow below given main rules:

- Do not clean external frame of combi while combi is functioning and do not use easily flammable materials.
- Do not hold the combi with wet hands or feet; also without shoes and with bare feet.
- Do not pick electricity cables.
- In case cables are damaged, shut-off the combi and fuse switches and do not use the combi.
- Electrical cables of combi and its accessories should have replaced by the Authorized Service.
- Do not expose the hung combi to direct vapour those may arise from cooking places.
- Prevent use of combi by children and inexperienced persons.

Control Panel of EWA Model Combi Devices



Figure 1 Control panel of Ewa

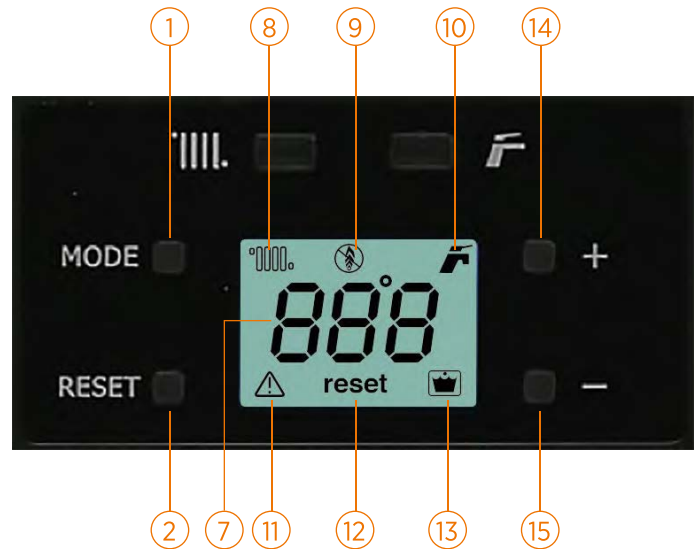



Figure 2 Control panel of Ewa combi screen

BUTTONS and PUSHBUTTONS

1. **MODE**, position adjustment button.
2. **RESET** button.
3. Radiator (CH) water temperature adjustment button.
4. **DHW** temperature adjustment button.
5. Software connection slot.
6. Digital display screen
7. Temperature, data and failure codes display
8. Radiator symbol is seen when combi is functioning in (CH) position. Symbol flashes at heating steps or when radiator temperature adjustment is made.
9. Flame symbol is only seen when boiler is active (burning in combi); when system detects availability of flame. It is seen as symbol  in case of failure.
10. **DHW** tap symbol is seen at summer and/or winter position of the combi. Symbol flashes on **DHW** request or when **DHW** adjustment is made.
11. Failure indicator.
12. Failure status **RESET** requirement.
13. Radiator low water pressure.
14. Temperature increasing button.
15. Temperature decreasing

The temperature value displayed on the combi screen has a $\pm 3^{\circ}\text{C}$ tolerance depending on environmental conditions not arising from the combi.

RESET: It is used for re-starting the combi and eliminating the failure in case of combi failure.

MODE: Winter/Summer/OFF mode is used for position adjustment.

Operating positions and related notifications:

POSITION EXPLANATIONS:


- **CLOSED** or **OFF** (3 digits LCD screen)
- **WINTER**► Radiator temperature + °C + tap + radiator is displayed.
- **SUMMER**► Radiator temperature + °C + tap is displayed.
- **CH ON**► Radiator Temperature + °C + tap + flashing radiator (symbol) is displayed.
- **DHW ON**► DHW temperature + °C + flashing tap (symbol) is displayed.
- **CH FROST PROTECTION**► Radiator temperature °C + flashing radiator (symbol) + when boiler is ignited flame (symbol) is displayed.
- **DHW FROST PROTECTION**► CH temperature + °C flashing radiator and tap (symbol) + when boiler ignited flame (symbol)
- **CH/DHW SETTING CHANGE**► CH adjustment change will be activated when radiator symbol rapidly flashes. DHW adjustment change will be activated when tap symbol rapidly flashes.
- Service technician function radiator + tap displayed. (Only for authorized service, wait for the function to end without pressing any button or rotating the button in such case!)

CH: (System) Central Heating **DHW:** Domestic Hot Water

2.2. SELECTION OF ON/OFF/STANDBY AND SUMMER/WINTER MODES

Use V automat switch for interrupting the electrical connection of combi. The temperature value when electricity is supplied to the device is the temperature value of water in the installation.

2.2.1. On/Off/Standby Positions

 Use V automat (fuse) switch for shutting ON/OFF the electrical connection of combi.



When the combi is started for the first time, screen displays nG letter and then a number (for instance 24) indicating kW power of the device



Then, OFF letter is displayed,



and screenlight is closed. Now, combi is at STANDBY position. The temperature value when electricity is supplied to the device is the temperature value of water in the installation.


2.2.2. Operation at Winter Position

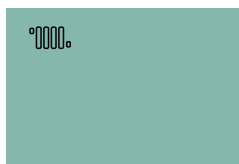
At that position, combi operates both for heating the environment and providing hot tap water.



Radiator temperature is adjusted with button (3) and Domestic Hot Water temperature adjustment is made with button(4) and this temperature is displayed by indicator (7) on the screen.



In order to shuton the combi, hold **MODE** button, whereas a circle starts on the screen, release the button when circle  is completed.



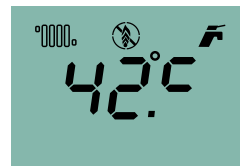
In such case, combi initially gets in the Radiator position, its symbol flashes at left top corner of screen and existing radiator installation temperature is displayed on the screen and then screen light turns off. At that position, you can adjust the temperature between 25 - 80 °C with the Radiator temperature adjustment button (3).




You can increase (14) and decrease (15) the temperature with temperature adjustment buttons (see.Figure 48) between 25 - 80 °C, screen lights when buttons are pressed and °C symbol flashes besides the radiator temperature value.



{If you have a ground heating system, as our Authorized Service adjust your combi for “**Low Temperature Operation**”, maximum temperature shall be limited with the Radiator temperature adjustment button (3) (e.g. maximum 47 °C)}.




Domestic Hot Water Adjustment at Winter Position; First press the DHW button (4). At that position,  symbol flashes at right top corner of the screen and existing DHW temperature will be seen on the screen and screen light will turn off.

You can adjust the hot tap water temperature value between 35 - 60 °C with (14) and (15) numbered buttons. Screen lights during temperature change, °C symbol flashes besides the DHW temperature value. Screen light turns off after adjustment.


2.2.3. Operation at Summer Position

Combi only operates for heating the Domestic Hot Water at that position. In order to switch to DHW position;





If you are starting the combi for the first time hold **MODE** button, and release the button after the cycle is completed on the screen, initially combi switches to radiator position, its symbol  will flash on left top corner of the screen existing radiator installation temperature shall be indicated on the screen and screenlight will be turned-off.



In order to switch to DHW position, hold **MODE** button and release the button after completion of cycle on the screen. At that position,  symbol flashes at right top corner of the screen and existing DHW temperature will be seen on the screen and screen light will turn off.



At that position , you can adjust the temperature between 35 - 60 °C with the Domestic Hot Water temperature adjustment button (4). Screen light will be open during adjustment, tap symbol  and Domestic Hot Water temperature value will flash. You can adjust the hot tap water temperature value between 35 - 60 °C with (14) and (15) numbered buttons. Screen lights during temperature change, °C symbol flashes besides the DHW temperature value. Screen light turns off after adjustment.

2.2.4. Resetting the Combi (Re-Starting)

In cases that device gives failure/locking errors hold **RESET** button for 3-4 seconds, and release after completing the cycle on the screen. You can reset the device and have it repeated re-start operations



A sample utilisation error; when E81 or E06 failure codes are displayed on the device screen, it has passed to failure since no ignition occurred in your device. In that case, any of gas line valves connected to the combi may be closed, combi will be restarted when closed valve is opened and RESET button is pressed. If combi is not started with resetting, please consult our Authorized Service.



Then, upon repeating the same operation, letter will be displayed on screen after completing the cycle and screen light turns off.



Now, your combi is at **STANDBY** position as **OFF**.

2.2.5. Shutting off the Combi

To bring the combi to OFF position while it is in SUMMER position;



When the **MODE** button is hold, after the cycle is completed while screen light is on,






screen will display **OFF** letter, that means your combi is OFF.



To bring combi in **OFF** position while it is in **WINTER**; hold **MODE** button, after cycle is completed while the screen light is on, combi will be in **SUMMER** position.



Analogue manometer is located near to right-bottom side of the combi. Installation pressure should be seen in this manometer even in the absence of electricity.

When combi is started, flame modulation symbol is seen at the middle section of the screen. At that position, you can increase (3+14)  and decrease (3+15)  the temperature with radiator temperature adjustment buttons (see. Figure 47-48) (3) between 25 – 80 °C, screen lights when buttons are pressed and °C symbol  flashes besides the radiator temperature value.



{If you have a ground heating system, as our Authorized Service adjust your combi for “**Low Temperature Operation**”, maximum temperature shall be limited with the Radiator (CH) temperature adjustment button (3) (e.g. maximum 50 °C)}.

2.2.6. Use with Room Thermostat (Optional)

Combi has initial preparation for remote control connection via environment thermostats being sold as optional sets. All Warmhaus thermostats can be connected with dual-wired cables. Carefully read user's and installation instructions given in the Accessory set. Thanks to control units with room thermostat having program clock, you can control your combi at installation place, operating based on room temperature and also adjust different uses depending on each day of the week.



Important: It is compulsory to have two different lines according to legal regulations being in force regarding electrical installations in case of using a thermostat On/Off on the Remote Control. It is not allowed to use any pipe or hose of the combi as electricity or phone earthing line. That must be ensured prior to making electrical connections of the combi.

General Utilisation Type

- Please consult our authorized services for room thermostats compatible with Warmhaus combi.
- Do not remove device components during operation.
- Do not place at a position allowing direct sunlight exposure or near heat sources.
- Manufacturer company shall not be responsible for below given situations:
 - a) Faulty installation
 - b) Making intervention on the device by unauthorized persons
 - c) Failing to follow instructions given in this book and room thermostat booklets

Maintenance and Service Life: Warmhaus room thermostat should not come into contact with water or excessive humidity. Unless an external damage occurs, the room thermostat does not require any maintenance.

2.2.7. Use of Outside Temperature Sensor (Optional)

Outside Weather Temperature Sensor (optional) can be installed in your combi by our Authorized Service (see: Installation Section; Accessory Connection Scheme), and you can enable automatic temperature adjustment for the radiator with immediate responses to outside weather temperature changes via smart and comfort operation. Therefore, it maintains an efficient and economic operation by reducing the radiator water temperature when outside weather temperature increases and gradually increasing the radiator water temperature when outside weather temperature decreases and sets you free from making radiator temperature adjustments. This sensor is activated when connected independently from the typology or availability of used thermostat, the relation between output temperature and outside temperature is defined according to curves given in the graphic below based on position of button located on the combi panel.

After connecting the Outside Sensor, adjustment is made according to average external weather temperature of your province with PO4 parameter. Our authorized service will make this adjustment during installation.

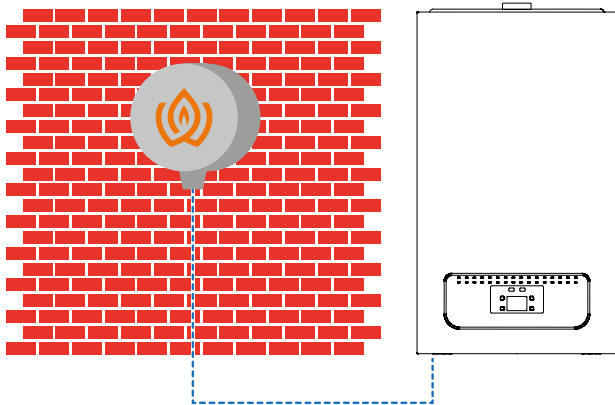


Figure 3 Boiler controlled by Outside Sensor

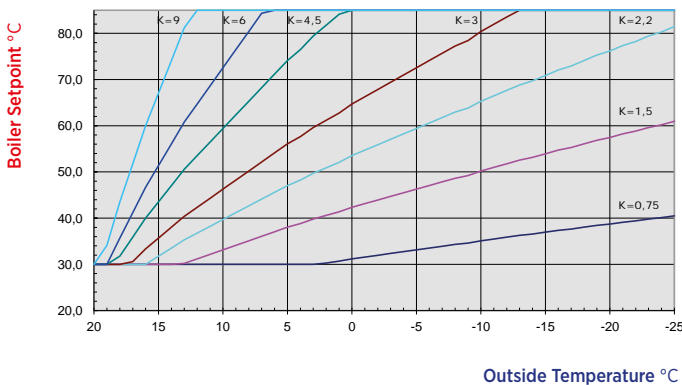


Figure 4 Outside weather temperature sensor operation curves

2.2.8. Customizing Combi Features

As your combi has an advanced electronic card, operation conditions and certain parameters related with your preferences may be changed by our Authorized Service. Please consult our authorized service when any changes requested in below given parameters.

(P07) Controlled Power Increase Period.

When combi starts, it uses a controlled period defined for reaching the adjusted maximum heating power. This period is adjusted as 3 minutes as standard and can be increased up to 3 minutes.

(P08) Radiator (Heating) Power.

with actual heat requirement of installation place. Thus, the combi automatically operates with variable gas flow rates depending on heat load of installation between the minimum and maximum power.

(P21) Low temperature region selection.

This parameter should be adjusted as 1 for ground heating or heating systems operating with low temperature. 0 (zero) value is selected for radiator systems to operate at high temperatures as standard.

(P24) Child Protection

This parameter is not active as standard, please consult our Authorized Service for activating the parameter (Protection lock is activated when parameter is adjusted as 1). Buttons are locked after 2 minutes following use of buttons when the function is active. Keylock is opened when the MODE button is hold until cycle is completed for getting off the child protection. Your combi is under control against setting changes upon activation of this feature.

(P40) Radiator ignition delay period.

Combi device is equipped with an electronic timer for preventing frequent ignition by the combi during heating stage. This period is adjusted as 2 minutes as standard and can be increased up to 10 minutes.

(P42) Ready Hot Water (Pre-Heating passive/active).

In order to rapidly prepare without waiting for your hot tap water request and reducing the cold water consumption during waiting, grid water is heated in the plate exchanger and ready hot water is stored. This function is displayed on 6 buttons PriwaPlus LCD Screen.

Activation of this function in PRIWA PLUS, PRIWA ErP PLUS and ENERWA models is performed with parametric adjustment by our Authorized Service depending on your request.

Air Deaeration Function

It is possible to activated deaeration function pressing RESET and (-) button for circle time.

The "Air" will be displayed on the screen. Boiler will start the Air Deaeration function.

During this function pump and 3-way valve are activated/deactivated in order to have deaeration of the hydraulic plant.

This function ends pushing again RESET and (-) button for circle time or at the end of deaeration time: 12 minutes.



Figure 5 Reset button and (-) button are pressed.

2.3. TROUBLESHOOTING

2.3.1. Failure Codes Table

Error Code	Description of the Error	Malfunction	Probable Cause	Solution(s)
E 01	Intervention of exhaust Thermostat (Open Combustion Chamber boiler)	Boiler does not work, E01 error code flashing on the screen	> Flue Sensor faulty	1-) Reset & Restart boiler 2-) Call for authorised service
E 02	Low water pressure in the system/system parameter wrongly setted	Boiler does not work, E02 error code flashing on the screen	> Water pressure in the boiler not enough	1-) Fill the boiler 1,2-1,5 bar according to manual page 28 or 29 problem will automatically removed 2-) Check if the system pressure 1,2 - 1,5 bar from the manometer located right & bottom of the boiler 3-) Reset & Restart boiler 4-) If problem persist Call for authorised service
E 03	High water pressure in the system	Boiler does not work, E03 error code flashing on the screen	> High Water pressure in the boiler higher than > 2,8 bar	1) First check the filling tap of the boiler and make sure it is closed. 2) During boiler operation, the safety valve may continue to drain water from the drain line, so make sure that this line is connected to a drain line. 3) If your plumbing line has a drain cock; first turn the boiler off and let the pressure drop to 1-1.5 bar, then switch it on again. 4) If the pressure increase occurs again, call an authorized service.
E 04	Domestic heating water temperature sensor faulty	Boiler does not work on DHW mode but still work on Central heating mode, E04 error code flashing on the screen	> Domestic heating water temperature sensor faulty	1-) Call for authorised service at first
E 05	Central heating FLOW temperature sensor faulty	Boiler does not work, E05 error code flashing on the screen	> Central heating FLOW temperature sensor faulty	1-) RESET boiler at first check if problem removed 2-) Check other gas devices if they are working 3-) Check main gas supply valve is open or not 4-) Check boiler gas supply valve below the boiler is open or not 5-) RESET boiler at first check if problem removed 6-) Call for authorised service
E 06	No ignition	Boiler does not work, E06 error code flashing on the screen	> Gas supply failure	1-) RESET boiler at first check if problem removed 2-) Check boiler central heating valves are open if they are closed open of all 3-) Check all radiator valves are open if they are closed open of all minimum 3 meters of radiator must be open 4-) RESET boiler and check if problem removed 5-) Call for authorised service
E 07	Safety thermostat intervention	Boiler does not work, E07 error code flashing on the screen	> Lack of water on the system > Pump blockage > Pump failure > Pump harness > Installation blockage	1-) RESET boiler at first check if problem removed 2-) Check boiler central heating valves are open if they are closed open of all 3-) Check all radiator valves are open if they are closed open of all minimum 3 meters of radiator must be open 4-) RESET boiler and check if problem removed 5-) Call for authorised service
E 08	Flame circuit failure	False flame signal from combustion or electrode	> Water blockage on syphon > Electronic board	1-) Call for authorised service
E 09	No water circulation in the system	Boiler does not work, E09 error code flashing on the screen	> Lack of water on the system > Pump blockage > Pump failure > Pump harness > Installation blockage	1-) RESET boiler at first check if problem removed 2-) Check boiler central heating valves are open if they are closed open of all 3-) Check all radiator valves are open if they are closed open of all minimum 3 meters of radiator must be open 4-) RESET boiler and check if problem removed 5-) Call for authorised service at first
E 11	Gas valve modulator disconnected	Boiler does not work, E11 error code flashing on the screen	> Gas valve harness	1-) Call for authorised service at first 2-) Check gas valve cabling between board and gas valve
E 13	Exhaust temperature probe over-temperature alarm	Boiler does not work, E13 error code flashing on the screen	> Over temperature flue gas outlet value > 105 C°	1-) Call for authorised service at first
E 14	Exhaust (FLUE) temperature probe fault	Boiler does not work, E14 error code flashing on the screen	> Central heating FLUE temperature sensor faulty	1-) Reset & Restart boiler 2-) Call for authorised service
E 15	Fan failure (feedback/ supply)	Boiler does not work, E15 error code flashing on the screen	> Fan harness	1-) Reset & Restart boiler 2-) Call for authorised service at first
E 16	Central heating temperature RETURN sensor faulty	Boiler does not work, E16 error code flashing on the screen	> Central heating RETURN temperature sensor faulty	1-) Reset & Restart boiler 2-) Call for authorised service at first
E 17	Temperature difference between FLOW and LIMIT NTC (Double Heating Probe) faulty	FLOW and LIMIT sensor (DOUBLE NTC) malfunction	> FLOW and LIMIT Sensor (double NTC) faulty	1-) Reset & Restart boiler 2-) Call for authorised service at first
E 19	Water flow selection with water flow meter input reading	Lack of domestic heating water on request	Wrong parameters settled on TsP menu	1-) Call for authorised service at first 2-) Only authorised service must adjust TsP Parameter P01=0 with default value

Error Code	Description of the Error	Malfunction	Probable Cause	Solution(s)
E 20	CH Overtemperature, Temperature Central Heating > TSP 81 value °C	Boiler does not work, E81 error code flashing on the screen	<ul style="list-style-type: none"> > Lack of water on the system > Pump blockage > Pump failure > Pump harness > Installation blockage 	<ul style="list-style-type: none"> 1-) RESET boiler at first check if problem removed 2-) Check boiler central heating valves are open if they are closed open of all 3-) Check all radiator valves are open if they are closed open of all minimum 3 meters of radiator must be open 4-) RESET boiler and check if problem removed 5-) Call for authorised service
E 21	Delta Temperature Central Heating flow and Return > TSP 82 value °C	Boiler does not work, E21 error code flashing on the screen	<ul style="list-style-type: none"> > Lack of water on the system > Pump blockage > Pump failure > Pump harness > Installation blockage 	<ul style="list-style-type: none"> 1-) RESET boiler at first check if problem removed 2-) Check boiler central heating valves are open if they are closed open of all 3-) Check all radiator valves are open if they are closed open of all minimum 3 meters of radiator must be open 4-) RESET boiler and check if problem removed 5-) Call for authorised service
E 28	Maximum allowed consecutive lock-out reset reached	Usable RESET number reached.	Too many consecutive lock-out failures (followed by reset) due to other possible causes	<ul style="list-style-type: none"> 1-) Removing power supply reset will be allowed 2-) Check the root cause of Error code to solve 3-) If fault still persists call for authorised service
E 37	Low voltage anomaly	Boiler does not work, E37 error code flashing on the screen	Low voltage < 165 VAC +/- 5% on the supply network operation mode OR During Au-TO calibration mode < 182 VAC +/- 5%	<ul style="list-style-type: none"> 1-) Call for Electrical supply network provider 2-) Error will remove if supply voltage > 170 VAC +/- 5% 3-) If you seen seen this E37 during calibration calibration can not be complete unless supply voltage > 188 VAC +/- 5%
E 40	Wrong network frequency survey	Boiler does not work, E40 error code flashing on the screen	Wrong frequency survey out of tolerance 50 Hz +/- 5% on the supply net work	<ul style="list-style-type: none"> 1-) Call for Electrical supply network provider 2-) Error will remove if supply frequency 50 Hz +/- 5%
E 41	Loose of flame more than 6 successive times	Boiler does not work, E41 error code flashing on the screen	<ul style="list-style-type: none"> > Too many domestic heat water request in short period (1 min) > Low gas pressure 	<ul style="list-style-type: none"> 1-) Call for authorised service at first
E 42	Buttons anomaly	Boiler does not work, E42 error code flashing on the screen	Wrong parameters settled on TsP menu	<ul style="list-style-type: none"> 1-) Call For service
E 43	Opentherm communication error	Boiler does not work, E43 error code flashing on the screen after 1 minute of communication error	Opentherm line disconnected	<ul style="list-style-type: none"> 1-) Remove energy from boiler and re energised E43 will be removed and boiler & buttons will get back to functional 2-) Replace the room unit batteries with the fresh ones and reset from room unit 3-) Check cabling between boiler and room unit and re connect if any disconnection, if connection set up successfully then connection symbol page 37 symbol 19 will be activated on the screen 4-) Call for authorised service to re connect opentherm connection
rE 44	Cumulated intermittent ignition without reaching burner ignition.	Boiler does not work, E44 error code flashing on the screen	<ul style="list-style-type: none"> > Intermittent contacts on harness > Hammer effect on water net > Too many request from in short time from out side room units or thermostad bridge etc. 	<ul style="list-style-type: none"> 1-) Reset & Restart boiler 2-) Call for authorised service
E 62	Calibration request	Boiler does not work, E62 error code flashing on the screen	<ul style="list-style-type: none"> > Calibration not done > Replacing board but not service key from the board dismantled > Service key damaged or disconnected > Updating Software (probable) 	<ul style="list-style-type: none"> 1-) Call For service
E 72	Delta T heating at ignition not occurred	Boiler does not work, E72 error code flashing on the screen	> FLOW OR RETURN Sensor not on position	<ul style="list-style-type: none"> 1-) Call for authorised service at first 2-) Check RETURN and FLOW sensor on position.
E 74	Second CH temperature Probe faulty	Boiler does not work, E74 error code flashing on the screen	> FLOW and LIMIT Sensor (double NTC) faulty	<ul style="list-style-type: none"> 1-) Reset & Restart boiler 2-) Call for authorised service.
E 77	Absolute current values reached	Boiler does not work, E77 error code flashing on the screen	<ul style="list-style-type: none"> > Gas inlet pressure > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Cabeling disconnections > Combustion calibration > Electronic board > Gas valve failiure 	<ul style="list-style-type: none"> 1-) Call for authorised service at first
E 78	Max regulation current value reached	Boiler does not work, E78 error code flashing on the screen	<ul style="list-style-type: none"> > Gas inlet pressure > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Cabeling disconnections > Combustion calibration > Electronic board > Gas valve failiure 	<ul style="list-style-type: none"> 1-) Call for authorised service at first

Error Code	Description of the Error	Malfunction	Probable Cause	Solution(s)
E 79	Min regulation current value reached	Boiler does not work, E79 error code flashing on the screen	<ul style="list-style-type: none"> > Gas inlet pressure > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Cabeling disconnections > Combustion calibration > Electronic board > Gas valve failiure 	1-) Call for authorised service at first
E 80	Problem on electronic gas valve driver	Boiler does not work, E80 error code flashing on the screen	<ul style="list-style-type: none"> > Electronic board > Gas valve failiure 	1-) Call for authorised service at first
E 81	Lock-out for combustion problem at starting (1)	Boiler does not work, E81 error code flashing on the screen	<ul style="list-style-type: none"> > Strong flue blokage > Combustion problem > Wrong flue > Gas inlet pressure > Aging or rust on the electrode > Recirculation on fluegas path > Electrode position > Combustion calibration 	1-) Call for authorised service at first
E82	Lock-out for combustion problem on Lawa / Lawa Plus models	Boiler does not work, E82 error code flashing on the screen	<ul style="list-style-type: none"> > Recirculation on fluegas path > Blokage on flue or wrong flue > Combustion calibration 	1-) If there is strong wind (ie.wind storm) wait until the wind storm stop then RESET the boiler 2-) IF problem persist Call for authorised service
E83	Temporary bad combustion fault problem on Lawa / Lawa Plus models	Boiler does not work, E83 error code flashing on the screen	<ul style="list-style-type: none"> > Recirculation on fluegas path > Blokage on flue or wrong flue > Combustion calibration 	1-) If there is strong wind (ie.wind storm) wait until the wind storm stop then RESET the boiler 2-) IF problem persist Call for authorised service
E 84	Capacity reduction for detected (supposed) low gas inlet pressure	Boiler does not work, E84 error code flashing on the screen	<ul style="list-style-type: none"> > Gas inlet pressure > Combustion problem 	1-) If there is strong wind (ie.wind storm) wait until the wind storm stop then RESET the boiler 2-) IF problem persist Call for authorised service
E 87	Problem on electronic gas valve circuit	Boiler does not work, E87 error code flashing on the screen	<ul style="list-style-type: none"> > Cabeling disconnections > Gas valve failiure 	1-) Call for authorised service at first
E 88	Fault of electronic gas valve managing circuit	Boiler does not work, E88 error code flashing on the screen	<ul style="list-style-type: none"> > Cabeling disconnections > Gas valve failiure 	1-) Call for authorised service at first
E 89	Problem on combustion feedback signal	Boiler does not work, E89 error code flashing on the screen	<ul style="list-style-type: none"> > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Cabeling disconnections > Combustion calibration > Electronic board > Gas valve failiure 	1-) Call for authorised service at first
E 90	Unable to regulate combustion	Boiler does not work, E90 error code flashing on the screen	<ul style="list-style-type: none"> > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Cabeling disconnections > Combustion calibration > Electronic board > Gas valve failiure 	1-) Call for authorised service at first
E 92	Air compensation active	Boiler does not work, E91 error code flashing on the screen	<ul style="list-style-type: none"> > Possible wind precence > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Combustion calibration > Min power adjustment 	1-) Call for authorised service at first
E 93	Unable to regulate combustion (temporarily)	Boiler does not work, E93 error code flashing on the screen	<ul style="list-style-type: none"> > Aging or rust on the electrode > Recirculation on fluegas path > Blokage on flue or wrong flue > Electrode position > Combustion calibration > Gas valve failiure > Electronic board 	1-) Call for authorised service at first
E 94	Possible low gas pressure or exhaust recirculation	Boiler does not work, E94 error code flashing on the screen	<ul style="list-style-type: none"> > Gas inlet pressure LOW > Recirculation on fluegas path > Blokage on flue or wrong flue > Aging or rust on the electrode > Electrode position > Combustion calibration > Gas valve failiure > Electronic board 	1-) Call for authorised service at first

Error Code	Description of the Error	Malfunction	Probable Cause	Solution(s)
E 95	Intermittent combustion value	Boiler does not work, E95 error code flashing on the screen	> Harness on electrode and earth > Aging or rust on the electrode > Electrode position > Combustion calibration	1-) Call for authorised service at first
E 96	Flue or air suction way blockage	Boiler does not work, E96 error code flashing on the screen	> Blokage on flue > Blokage on air suction path	1-) Call for authorised service at first
E 98	SW error, board start-up error fault	Boiler does not work, E98 error code flashing on the screen	> Boiler software problem	1-) Call for authorised service at first
E 99	Generic fault	Boiler does not work, E99 error code flashing on the screen	> Boiler electronic hardware problem	1-) Reset & Restart boiler 2-) Call for authorised service at first

(1) Call the Authorized Service if failure continues.

(2) 81 numbered failure corresponds any blocking in the exhaust gas pipe. In such case, you should consult the authorized service technician before re-starting the combi.

2.3.2. Filling/Emptying Radiator Installation

Ensure that the pressure reaches to 1-1,5 bar in the Manometer indicated with G symbol by rotating the Fill Tap counter clockwise that is indicated with F symbol in Lower View Figure 7 for filling the closed circuit radiator installation after installation of the and close the Filling Tap by rotating clockwise and discharge air of radiators via air discharge valves.

Combi boiler safety valve discharge should be connected to a discharge funnel.

Otherwise, safety valve shall be activated and manufacturer shall not be responsible due to water discharge to the place of device.

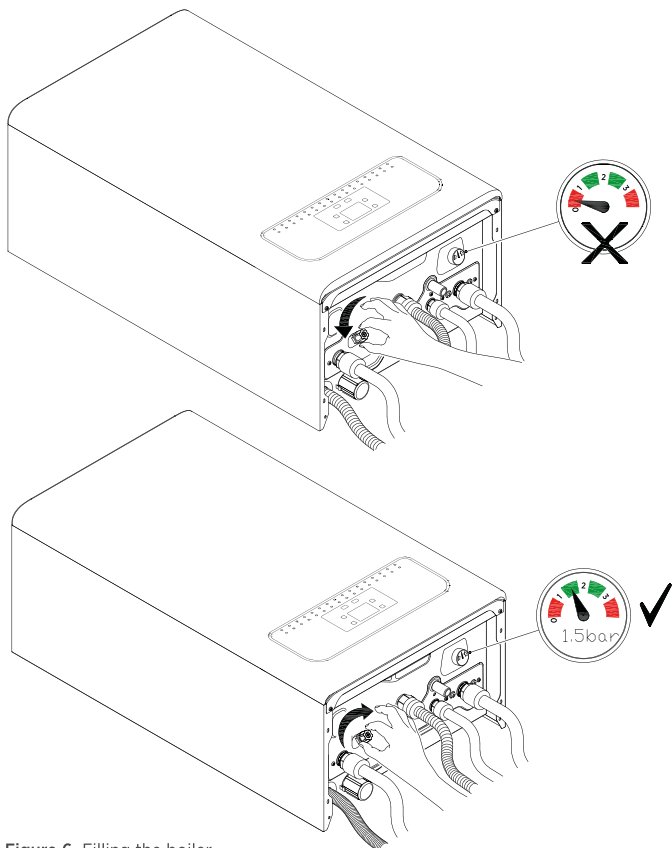
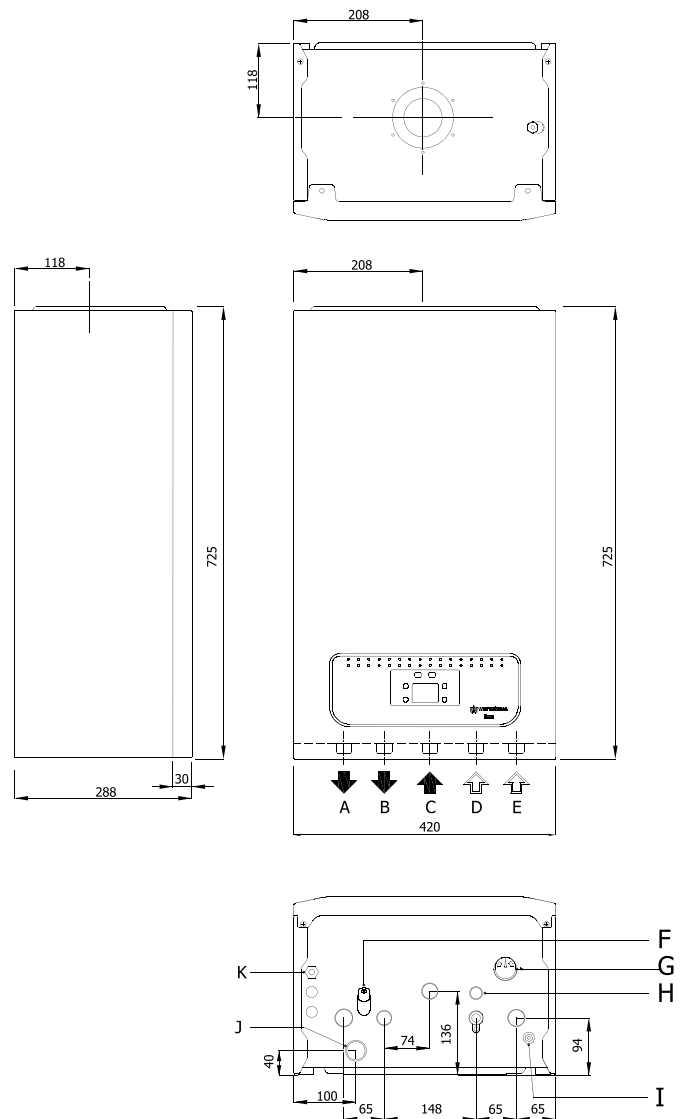


Figure 6 Filling the boiler



- A: Central heating flow
- B: Domestic hot water outlet
- C: Gas inlet
- D: Domestic hot water inlet
- E: Central heating return
- F: Filling valve

- G: Manometer
- H: Pressure relief valve outlet
- I: Drain point
- J: Condensate drain
- K: 230V 50HZ AC

Figure 7 Boiler connections

2.4. RECOMMENDATIONS FOR ECONOMICAL USE OF COMBI

Your combi is adjusted at ECO mode for economic use, we recommend not to change.

Correct Capacity Selection

Heat loss calculation of the combi location should be made correctly and combi capacity should comply with this calculation. Devices not having adequate capacity shall give late responses to heating requests, devices with higher capacity may cause discomfort and more fuel consumption as they more frequently opened and closed. Therefore, combi capacities should be selected according to the place used.

Insulation

Insulation of your building is the most important item reducing the heat loss and gas consumption. However, as your combi has the highest thickness insulation of its class, heat loss is minimized.

Radiators

Ensure balancing our pressure distribution of your radiator installation within the house by making reduction adjustments from radiator valves. Placing furnitures in front of radiators prevents air circulation and causes discomfort and more fuel consumption. Reducing radiator valves of rooms not used for a long period or if thermostatic radiator valve is used, bringing to the lowest position then, closing room doors will provide saving.

Domestic Hot Water

Always adjust the domestic hot water temperature as (38-42 °C). Adjustment of temperature adjuster as low ensures a considerable power saving. In addition, high domestic hot water temperatures cause strong calcification and that negatively affects operation of the device (for instance, longer heating periods, less flow rate).

Thermostatic Radiator Valves

You can both acquire savings and comfort by balancing the heat distribution among the house by using Thermostatic Radiator Valves.

Room Thermostats

Your combi will operate more economically as you will have the chance to adjust requested room temperature according to comfort and economy timings via room thermostats. Thus, you can adjust temperature of your room as you wish, and also you can acquire approximately 6% power saving with every degree of temperature decrease.

Ventilation

Do not leave windows slightly open for ventilating room/rooms. In such case, continuous heat loss will occur and not having any certain improvement in the room air.

Fully opening windows for a short period provides a better result. Bring thermostatic radiator valves to lowest position when ventilating rooms.

Cleaning And Maintenance

Attention: to preserve the boiler's integrity and keep the safety features, performance and reliability, which distinguish it, unchanged over time, you must at least execute maintenance operations on a yearly basis in compliance with what is stated in the relative point at "annual check and maintenance of the appliance", in compliance with national, regional, or local standards in force.

We recommend stipulating a yearly cleaning and maintenance contract with an authorised local firm.

2.5. ISSUES REQUIRED TO BE TAKEN INTO CONSIDERATION FOR WARRANTY CONDITIONS

This warranty given by WARMHAUS does not cover elimination of failures arising from abnormal use of the product and also out of the warranty scope for below given situations

1. Damages and failures occurring in devices which are not first started by Warmhaus Authorized Services,
2. Damages and failures arising from use of the product contrary to items given in User's Manual and using out of its intended purpose.
3. Damages and failures arising from wrong type selection,
4. Damages and failures arising from maintenance and repairs performed by persons other than our Authorized Services,
5. Damages and failures occurring due to transportation, unloading, loading, storing, external physical (Crushing, scratches, fractures) and chemical factors following delivery of the Product,
6. Damages and failures arising from fire and lightning,
7. Damages and failures arising from false fuel use and fuel characteristics,
8. Low or excessive voltage; unearthed socket usage;
9. Damages and failures arising from faulty electricity installations,
10. Damages and failures arising from failing to perform timely annual maintenance
11. And cleaning, defined periodical maintenance operations by our Authorized Services,
12. Damages and failures those may occur in the device or usage area due to other products and accessories used in a system with the device subject to the Warranty,
13. Damages and failures arising from frost/icing or occurring due to using in the outdoor places (open balcony, etc.).
14. Altering the Registry Label and Warranty Certificate,
15. Damages and failures arising from using water out of the water values defined in device user's guide,

Elimination of above mentioned failures shall be performed against payment.

Our distinguished customer, we believe the importance of providing good products to you as well as rendering good services.

Recommendations and Data to be Followed:

1. When first start of your combi is done, please keep the technical service document given by the Authorized Service and a copy of device invoice and the Warranty Document approved by your Authorized Dealer.
2. Use your product according to principles of installation and operation guide.
3. Keep the "SERVICE DOCUMENT" if received from your service technician following the service taken. The Service Document will be beneficial for you in any problems those may occur in your device in the future.

TECHNICAL DATA	Unit	Ewa 20				Ewa 24			
Gas Circuit		NG	NG	LPG	LPG	NG	NG	LPG	LPG
Gas Type		G20	G25	G30	G31	G20	G25	G30	G31
Gas Supply Pressure		20	25	30	37	20	25	30	37
Gas Consumption at Maximum	m ³ /h	2,12	2,58	0,71	0,81	2,38	2,85	0,73	0,92
Gas Consumption at Minimum	m ³ /h	0,36	0,42	0,13	0,14	0,37	0,43	0,11	0,11
Seasonal Space Heating Energy Efficiency Class		A				A			
Seasonal Space Heating Energy Efficiency (η _s)	%	91,2	91,2	90,5	90,5	92	92	92	92
Useful efficiency at rated heat output and high temperature regime(2) (η ₄)	%	87,6	87,6	88,3	88,3	87,6	87,6	87,6	87,6
Useful efficiency at 30% of rated heat output and low temperature regime(1) (η ₁)	%	96,4	96,4	95,5	95,5	97,5	97,5	97,5	97,5
Radiator Circuit		G20	G25	G30	G31	G20	G25	G30	G31
Maximum heat input Q _n	kW	20	20	20	20	24,25	24,25	24,25	24,25
Minimum heat input Q _n	kW	3,5	3,5	3,5	3,5	3,5	3,5	3,5	2,8
Maximum Heat Output P _n (50/30 °C)	kW	21,1	21,1	20,7	20,7	25	25	24,7	25
Minimum Heat Output P _n (50/30 °C)	kW	3,7	3,7	3,6	3,6	3,6	3,6	3,55	2,9
Maximum Heat Output (P _n) (80/60 °C)	kW	19,4	19,4	19,4	19,4	23,7	23,7	23,6	23,7
Minimum Heat Output (P _n) (80/60 °C)	kW	3,4	3,4	3,3	3,3	3,0	3,0	3,2	2,5
Temperature Selection Range (min+max) High Temperature	°C	25 ÷ 80 / 25 ÷ 47							
Temperature Selection Range (min+max) Low Temperature	°C	25 ÷ 80 / 25 ÷ 47							
Operating Pressure (Maximum/Minimum)	bar	3 / 0,5				3 / 0,5			
Expansion Tank Volume	bar	7 / 8				7 / 8			
Pump pressure (at constant flow rate)	mSS	6,2 (700 l/h)				6,2 (700 l/h)			
Maximum Pump Delivery Head (Q = 0 m ³ /h)	mH ₂ O	6,2				6,2			
Max. Pump Flow Rate	m ³ /h	2,3				2,3			
Pump Energy Efficiency Index	EI	≤ 0,20				≤ 0,20			
Domestic Hot Water Circuit									
Water Heating Energy Efficiency Class		A				A		A	
Water Heating Declared Load Profile		XL				L		XL	
Water Heating Energy Efficiency	%	85				81		84	
Gas Consumption at Maximum	m ³ /h	2,47	2,83	0,73	0,94				
Modulation Rate		15/100	15/100	15/100	15/100	14/100	14/100	14/100	14/100
Maximum DHW Heat Input	kW	23,7	23,7	23,7	23,2	25,8			
Minimum DHW Heat Input	kW	3,5	3,5	3,5	3,5	3,5			
Max. Domestic Hot Water flow rate Minimum / (Maksimum: Δt: 30 °C / Δt: 35 °C)	L/min	1,5 / (11 / 10)				1,5 / (12 / 11)			
DHW Pressure (Minimum / Maksimum)	bar	0,5 / 10				0,5 / 10			
Temperature Adjustment Range	°C	35 - 60				35 - 60			
Electricity Circuit / Protection Index	IP	IPX5D				IPX5D			
Electricity Supply	V	230 V +%10; -%15				230 V +%10; -%15			
Electricity Consumption (Min./Max.)	Watt	57 / 86				55 / 95			
Exhaust Gas Circuit		G20	G25	G30	G31	G20	G25	G30	G31
(80/60 °C) Exhaust gas temperature (Min. / Max.)	°C	55 / 78	55 / 78	54 / 78	54 / 78	69 / 71	65 / 70	57 / 70	60 / 70
(50/30 °C) Exhaust gas temperature (Min. / Max.)	°C	37 / 57	37 / 57	41 / 55	41 / 55	49 / 51	48 / 49	43 / 57	47 / 51
Maximum Exhaust Gas Temperature [Maximum DHW Mode]	°C	78				70			
Weighted Value of NO _x (GCV) (NO _x Class: 6)	mg/kWh	33		38		20	19	42	31
General / Dimensions (H x W X D)		725 x 420 x 288				725 x 420 x 288			
Sound Level	dB (A)	52				52			
Maximum Flue Length (Ø60/100 mm) [Horizontal* / (Vertical*)]	m	10 / 11				10 / 11			
Net Weight / Packed Device Weight	kg	30 / 31,8				32,6 / 33,8			
Type		B ₂₃ , B _{23P} , B ₃₃ , B _{33P} , B ₅₃ , B _{53P} , C ₁₃ , C ₃₃ , C ₄₃ , C ₅₃ , C ₆₃ , C ₈₃ , C ₉₃ , C ₍₁₀₎₃							

(1) Low temperature means for condensing boilers 30 °C, for low temperature boilers 37 °C and for other heaters 50 °C return temperature (at heater inlet).
(2) High temperature regime means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet.

* At the maximum flue distance, the flue length should be reduced by 1 meter for every 90° bend and 0.5 meter for every 45° bend.

All information in the ERP Data Sheet & Product Data Sheet is based on the test results of the SZU Test / BRNO laboratories.

Product Fiche (according to EU regulation No 811/2013 and 814/2013)


Model		Ewa 20	Ewa 24		
Space heating - Temperature application		High / Medium / Low			
Water heating - Declared load profile		XL	L	XL	
Seasonal space heating energy efficiency class		A	A	A	
Water heating energy efficiency class		A	A	A	
Rated heat output (Prated veya Psup)		kW	19	24	24
Space heating - annual energy consumption	QHE	GJ	34,8	42	42
Water heating - Annual energy consumption		kWh (*)	37	26	37
		GJ (**)	17	11	18
Seasonal space heating energy efficiency		%	91,17	92	92
Water heating energy efficiency		%	85	81	84
Sound power level L_{WA} indoors		dB	52	52	52
Option to only operate during low demand periods		—	—	—	—
Specific precautions for assembly, installation and maintenance		Before any assembly, installation or maintenance the user and installation manual has to be read attentively and to be followed.			

All the data that is included in the product information was determined by applying the specifications of the relevant European directives. Differences to product information listed elsewhere may result in different test conditions. Only the data that is contained in this product information is applicable and valid.

(*) Electricity

(**) Fuel

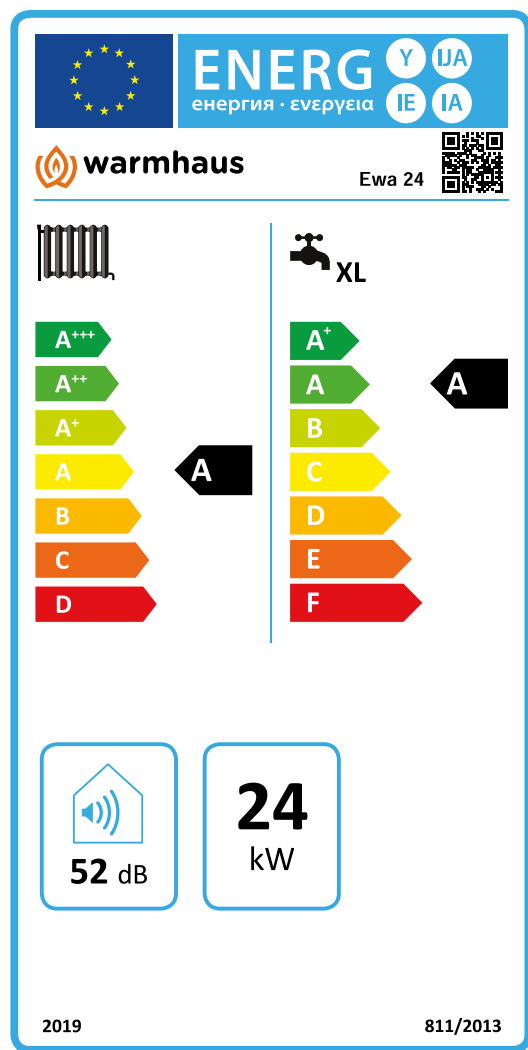
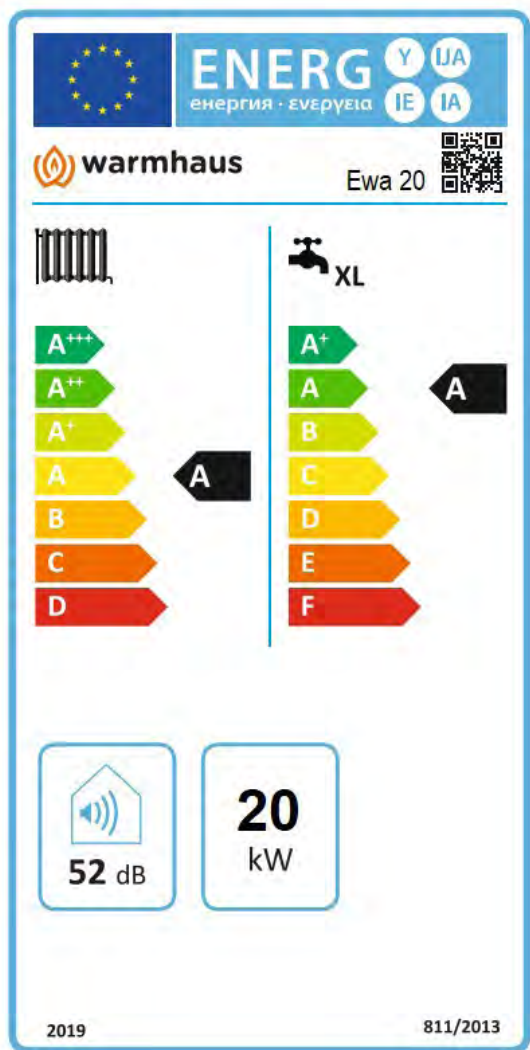
ErP DATA (according to EU regulation No 813/2013 and 814/2013)

Model			Ewa 20	Ewa 24	
Water heating - Declared load profile			XL	L	XL
Rated Heat Output	Prated	kW		24	24
Useful heat output at rated heat output and high temperature regime (2)	P_4	kW	19,4	23,7	23,7
Useful heat output at 30% of rated heat output and low temperature regime (1)	P_1	kW	3,72	4,16	4,16
Seasonal Space Heating Energy Efficiency	η_s	%	91	92	92
Useful efficiency at rated heat output and high temperature regime(2)	η_4	%	87,6	87,57	87,57
Useful efficiency at 30% of rated heat output and low temperature regime(1)	η_1	%	96,42	97,48	97,48
Auxiliary Electricity Consumption					
Full load	e_{lmax}	kW	0,040	0,43	0,43
Part load	e_{lmin}	kW	0,01	0,11	0,11
Standby mode	P_{SB}	kW	0,004	0,005	0,005
Other Items					
Standby heat loss	P_{Stby}	kW	0,044	0,057	0,057
Ignition burner power consumption	P_{ign}	kW		0,000	0,000
Space heating - annual energy consumption	Q_{HE}	GJ		42	42
Sound power level, indoors	L_{WA}	dB	52	52	52
Emissions of nitrogen oxides	NOX	mg/kWh	33	20	20
Domestic Hot Water Parameters					
Declared Load Profile				L	XL
Daily electricity consumption	Q_{elec}	kWh	0,167	0,117	0,169
Annual electricity consumption*	AEC	kWh	37	26	37
Water Heating Energy Efficiency	h_{wh}	%	85	81	84
Daily fuel consumption	Q_{fuel}	kWh	22,900	14,809	23,152
Annual fuel consumption	AFC	GJ	17	11	18
Condensing boiler			Yes	Yes	Yes
Low temperature boiler			Yes	Yes	Yes
Combination boiler			Yes	Yes	Yes
B1 Boiler			No	No	No
Room boiler with combined heat and power			Yes	Yes	Yes
Auxiliary boiler			No	No	No
Brand Name					
Manufacturer adress			Warmhaus Isıtma ve Sogutma Sistemleri San. Tic. A.S. Işıktepe OSB Mah. Park Cad. No:10 16140, Nilüfer / Bursa		
Warnings 	All specific precautions for assembly, installation and maintenance are described in the operating and installation manual. Read and follow the operating and installation manual.				
	Read and follow the operating and installation manual regarding assembly, installation, maintenance, removal, recycling and/or disposal.				

(*) for average climatic conditions

(1) Low temperature means for condensing boilers 30 °C, for low temperature boilers 37 °C and for other heaters 50 °C return temperature (at heater inlet).

(2) High temperature regime means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet.



All descriptions and illustrations provided in this document have been carefully prepared but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet. All goods are sold subject to our standard Conditions of Sale which are available on request.

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CONDENSING COMBI BOILER USER MANUAL

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