



XRGI[®]

U S E R M A N U A L

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FOREWORD

Congratulations on the purchase of your new XRGI® system! It offers you an economically viable solution to reduce your energy costs in an environmentally friendly way. Using the principle of combined heat and power generation, the XRGI® system utilises the primary energy used extremely efficiently – achieving an efficiency of up to 96% – at the same time as saving resources and protecting the environment.

The special feature of this proven technology is that the heat produced during electricity generation is available for you to use and is not emitted to the environment with harmful consequences. This is why CHP is rightly seen as the sustainable energy production method of the future. It actively helps to protect the environment, which is also why environmentalists welcome it.

Co-generation, or combined heat and power, widely known as a CHP, stands out when it comes to “green” energy generation methods: compared to solar and wind power plants, a combined heat and power system is not actually dependent on weather conditions. Co-generation systems save resources whatever the weather and provide a reliable supply of electricity and heat. You will always have power and heat available – you can depend on it!



Please contact your EC POWER dealer should you have any questions regarding your XRGI® system.

1 SYSTEM AND DOCUMENTATION INFORMATION

This provides detailed information about the individual functions of the XRGi® system.

The iQ User Manual provides important safety instructions that must be complied with when operating the XRGi® system. Read this iQ User Manual carefully before installation.

Only correct assembling, installation, commissioning, operation and maintenance of the XRGi® system according to the specifications of EC POWER ensures proper functioning and a valid warranty. Keep this iQ User Manual. EC POWER continuously improves its products and reserves the right to make technical changes and to implement these changes. This does not imply any obligation to subsequently make corresponding modifications to XRGi® systems already delivered.

The following information is a guide through the entire documentation. In conjunction with this iQ User Manual, additional documents are valid. EC POWER assumes no liability for any damages caused by non-compliance with these documents.

1.1 ORIGINAL OPERATING INSTRUCTION

This iQ User Manual contains original operating instructions in accordance with the Machinery Directive.

1.2 APPLICABLE DOCUMENTS

When operating the XRGi® system, all operating instructions for parts and components of the XRGi® system must be complied with. These operating instructions are included with the respective parts of the XRGi® system and additional components.

Observe all operating instructions included with the components of the XRGi® system.

These documents are subject to technical modifications!

Due to the continuous development of the XRGi® systems, illustrations, functional steps and technical data may differ slightly.

1.3 KEEP THE DOCUMENTS

The system operator keeps the iQ User Manual and other instructions for future reference so that they are available when needed.

1.4 OPERATOR-SIDE PREREQUISITES

The operator of the XRGi® system has a duty of care to ensure that the requirements stated in this user manual for safe operation are adhered to.

The user manual must be positioned on the XRGi® system. Also observe the additional documents in the technical documentation. The system operator has a duty of care to ensure that the XRGi® system is only utilised when all the safety devices and/or equipment are available, activated and undamaged. The system operator must have read and fully understood this user manual before operating the XRGi® system.

SPECIALISED, SKILLED PERSONNEL

The personnel who are responsible for the commissioning, troubleshooting, remedying errors and disruptions and servicing/maintenance of the XRGi® system must be familiar with the XRGi® system and the special requirements, risks and hazards involved with the works and must have been specially trained and instructed by the manufacturer of the system. They must have read and understood this documentation and the user manual in the technical documentation. In addition, their safety training should have provided them with the required knowledge to be able to avoid, or minimise, any residual risks and/or hazards to themselves and other third parties, especially during maintenance work.

If the user manual refers to the EC POWER dealer, then this exclusively refers to the "specialised, skilled personnel".

DEFINITION OF ELECTRO-TECHNICAL, SKILLED PERSONNEL

Works on current carrying elements of the XRGi® system may only be executed by inspected, skilled electricians. The works must be executed in accordance with the current, valid technical regulations for electro-technical units and systems. Skilled electricians should additionally possess an accreditation from the relevant power supply and/or utility company.

1.5 RATING PLATES

POWER UNIT

The rating plate is located on the rear of the Power Unit.

Legend

- 1 Type description of the XRGI® system
- 2 Serial number of the Power Unit
- 3 Description of the type approval
- 4 Technical data of the Power Unit
- 5 CE marking



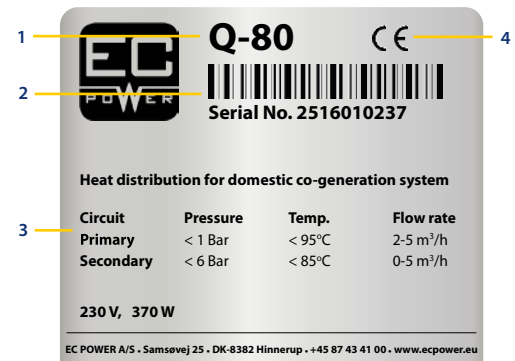
Power Unit

Q-HEAT DISTRIBUTOR

The rating plate is located on the inside of the Q-Heat Distributor below the electronics box.

Legend

- 1 Type description of the Q-Heat Distributor
- 2 Serial number of the Q-Heat Distributor
- 3 Technical data of the Q-Heat Distributor
- 4 CE marking



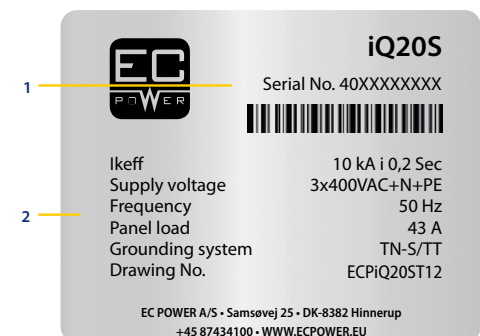
Q-Heat Distributor

IQ-CONTROL PANEL

The iQ-Control Panel is equipped with two rating plates. These are located on the inside of the iQ-Control Panel door and on the left side of the iQ-Control Panel below the main switch.

Legend

- 1 iQ-Control Panel serial No.
- 2 Technical data of the iQ-Control Panel
- 3 Type description of the iQ-Control Panel
- 4 XRGI®-ID of the XRGI® system



iQ-Control Panel



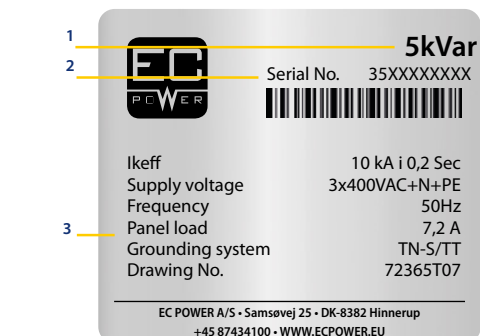
iQ-Control Panel

POWER FACTOR CORRECTOR

The rating plate is located on the inside of the power factor corrector.

Legend

- 1 Type description of the power factor corrector
- 2 Power factor corrector serial No.
- 3 Technical data of the power factor corrector



Power factor corrector

The rating plates are for illustration purpose only.

1.6 VALIDITY OF THE GUIDE

This iQ User Manual only applies to XRGi® systems with the following article numbers:

Type	Article number
XRGi® 6	X060001
XRGi® 6 LowNOx	X060003
XRGi® 9	X090001
XRGi® 15 LowNOx	X150003
XRGi® 20	X200001
XRGi® 20 BIOGENIC	X200006

1.7 CE MARKING



With the CE marking, products comply with the essential requirements of the relevant directives in accordance with the rating plate.

2 SAFETY INSTRUCTIONS

Read the following chapter carefully and adhere to the safety instructions. Contact your EC POWER dealer if you are unsure about anything or if any of the safety instructions are not clear to you. The XRGi® system was developed in accordance with the rules of technology and complies with and applies recognised, conventional safety measures. To achieve maximum possible safety, it is essential that all the safety instructions contained in this iQ User Manual are adhered to and fully implemented. To avoid any potential hazards and/or risks, ensure that no unauthorised persons (especially children) come into contact with the XRGi® system.

2.1 INFORMATION, SAFETY AND WARNING INSTRUCTIONS

During operation of the XRGi® system, observe the information, safety and warning symbols.

This document uses symbols depending on the potential danger of the situation.



INFO!

The information symbol is not a safety symbol. It provides important and useful information on the topic.



CAUTION!

This safety symbol refers to a potentially hazardous situation that could lead to minor personal injury. It is also used in instances of imminent damage to property.



WARNING!

This safety symbol refers to a potentially hazardous situation that could lead to serious personal or fatal injury.

2.2 INTENDED USE

Improper or not intended use of the XRGi® system can result in danger to life and limb of the system operator or third parties or damage to the XRGi® system and other property.

The XRGi® system is a combined heat and power generation system and must be used for this purpose only in multi-family houses, small businesses, hotels, restaurants, residential homes, schools, etc. Moreover, the XRGi® system can be used in applications with biogenic gases such as wastewater treatment plants, recycling of organic waste and landfills. The XRGi® system is intended for:

- heat generation for closed hot water and central heating systems
- simultaneous generation of electrical energy and its supply to the public power grid
- central hot water heating in private homes and businesses
- generation of low-temperature process heat and electricity in applications with biogenic gases

Any other or further use is considered improper use. The manufacturer/supplier is not liable for resulting damages. The risk is borne by the system operator alone.



EC POWER assumes no liability for damages caused by non-compliance with this iQ User Manual.

The intended use includes:

- compliance with the applicable commissioning, installation and maintenance instructions for the XRGi® system and other parts and components of the XRGi® system
- installation and assembly in accordance with the device and system approval
- compliance with all inspection and maintenance conditions specified in the instructions

Any improper use is prohibited!

2.3 GENERAL SAFETY INSTRUCTIONS

Only skilled personnel authorised by EC POWER who has undergone special training for the XRGI® system through EC POWER may commission the XRGI® system. During installation and commissioning, the installer must observe the existing rules, regulations and guidelines. The installer also assumes responsibility for the proper installation and commissioning.

Before installing the XRGI® system, ensure the following:

- Statement of the gas supply company
- Statement of the regional chimney sweep
- Approval of the utility company (DNO)

Before starting the installation, make sure that the system operator has carried out all the necessary applications for the connection of the XRGI® system.

Observe the following safety instructions for protection against electric shock, injury and fire risks.

- Only use the XRGI® system for its intended purpose.
- The XRGI® system must be installed on a stable foundation.
- Before commencing maintenance, ensure that the on-site mains voltage matches the line voltage specified on the rating plate. The mains voltage specified by the manufacturer must not be deviated from when using or replacing mains voltage cables on the XRGI® system. Never handle the mains plug with wet hands.
- Ensure that the power cable is undamaged. Any rough or sharp-edged object has the potential to damage the cable. Replace damaged cables immediately.
- Only connect the cable when the XRGI® system is switched off.
- Ensure that the supply line or extension cable is not damaged by being run over, crushed, stretched or similar. Protect cables from heat, oil and sharp edges. All cabling must comply with the diameter given in the XRGI® Installation Guide and be splash-proof. Ensure that cables are not in permanent contact with water.
- Only use the original EC POWER accessories and spare parts.
- Do not wear any jewellery or clothing that could be caught in moving parts.
- Protect electrical equipment from humidity and rain and never immerse it in water. Do not use in a humid environment or in areas with high levels of atmospheric humidity.
- Do not operate the XRGI® system under the influence of alcohol, medicines, drugs or if you experience symptoms like illness, fever or tiredness as they may impair your ability to react.
- Keep children away from the XRGI® system at all times. Only allow persons who have been trained in the handling of the XRGI® system or who have provided evidence of their ability to operate it and who have been expressly authorised to operate the XRGI® system. Do not allow children or young people to operate the XRGI® system. In addition, persons (including children) with limited physical, sensory or mental capabilities, or lack of experience and/or knowledge, are prohibited from operating the XRGI® system unless they are supervised or instructed in how to operate the XRGI® system by a person responsible for their safety.
- Never reach into the Power Unit with bare hands or other materials when the machine is running.
- Only clean the XRGI® system with a damp cloth. Never use solvents, turpentine, petrol, abrasive cleaning agents or similar. Ensure that all parts have dried out thoroughly before maintenance.
- Only allow skilled personnel authorised by EC POWER to perform repairs on the XRGI® system.
- Only allow skilled personnel authorised by EC POWER to remove the housing of the XRGI® system.
- If safety equipment has to be removed to permit work on the XRGI® system, then only switch on the XRGI® system when all the safety equipment has been refitted and checks have been made that it is working properly.
- Never start up the XRGI® system with faulty safety equipment or with safety equipment removed (turn off the main switch). Defective safety equipment must be repaired or replaced immediately. Missing safety equipment must be installed immediately.

2.3.1 HANDLING COOLANT AND ENGINE OIL



Always wear safety gloves and safety glasses when handling coolant and engine oil!

IN THE EVENT OF CONTACT WITH COOLANT AND ENGINE OIL

Property

- Use absorbent material to wipe off the oil and dispose it as hazardous waste. Replace clothing and shoes saturated with coolant and oil. Do not store any contaminated cloths in clothing pockets.

Skin

- In case of contact, immediately wash skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Wash contaminated clothing before reuse. Seek medical advice if symptoms persist.

Eyes

- Remove contact lenses. Rinse the eyes immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice if symptoms persist.



In addition, observe the respective safety data sheets for XRGI® Engine Coolant and Engine Oil. They contain detailed information on hazard warnings, protective and first-aid measures, handling, transportation, and disposal regulations.

2.3.2 ACTIONS WITH SMELL OF GAS IN BUILDINGS

A malfunction can cause gas to escape and cause poisoning and explosion hazards. Proceed as follows in the event of any smell of gas in buildings:

- Close the yellow gas valve on the main switch.
- Close the gas valve on the XRGI® system connection panel and check that the gas valves on all other equipment are closed!
- Close all gas fittings that are still open (pilot lights, gas-cooled fridges, etc.)!
- Do not operate any electrical switches!
- Do not unplug any electrical equipment!
- Do not operate any electrical bells!
- Do not use matches or cigarette lighters!
- Do not smoke!
- Do not use telephones, cordless telephones or mobile phones within the hazard area!
- Immediately open all doors and windows!
- Immediately extinguish all flames!
- Immediately close the gas solenoid valve on the gas meter or the main gas solenoid valve!
- Warn other occupants in the building and leave the building!
- Only turn the lights back on when there is no longer any smell of gas!
- Do not rely solely on your own sense of smell; involve other people as well!
- Contact the gas company immediately, if you cannot identify the cause of the gas smell even though all the gas valves are closed. Also if there is only a slight smell of gas and you cannot locate/identify the origin of the smell!
- If you smell gas from areas you cannot access directly, immediately call the police and/or fire service who are authorised to gain entry. At the same time, notify the gas supply company!
- If you suspect a gas leak, ventilate the room thoroughly but do not enter. Warn other occupants in the building. At the same time, notify the gas supply company!
- Do not attempt to repair faults or damage to gas systems yourself! Only allow skilled personnel (i.e., the operatives and installation contractors of your gas supplier) to remedy such faults!
- Ensure that the area affected is accessible to the emergency services!

2.3.3 ACTIONS WITH FIRE OR INGRESS OF WATER

Proceed as follows in the event of fire or the ingress of water:

- Switch off the all-pole circuit breaker!
- Switch off the main switch on the iQ-Control Panel of the XRGI® system!
- Close the gas valve on the gas pipe!
- Inform the responsible service department!
- In the event of the outbreak of fire, immediately close the gas valve on the connection panel and the main gas solenoid valve on the gas pipe, cut off the supply of fresh air to the fire and inform the local fire service!
- In case of flooding (e.g., flooding in the basement), do not step into the water!
- Only use approved fire extinguishers to put out the fire! Never use water!
- Warn other occupants of the building and leave the building!

2.3.4 ACTIONS WITH SMELL OF EXHAUST GAS IN BUILDINGS

A malfunction may cause exhaust gases to escape resulting in a risk of poisoning. If you smell exhaust gas in buildings, proceed as follows:

- Shut down the XRGI® system!
- Open windows and doors!
- Notify your heating specialist company or the EC POWER Hotline!

2.3.5 FROST PROTECTION

The engine circuit of the Power Unit is frost-proof when using XRGI® Engine Coolant and regularly maintained according to the applicable maintenance instructions (see the Engine Coolant data sheets from EC POWER).

2.3.6 CONTACT HAZARD

Components that can cause injury on contact (hot and/or electrically conductive parts) are concealed behind panels that can only be removed with keys or tools. Only allow skilled personnel authorised by EC POWER to remove these panels.

The door of the iQ-Control Panel is provided for your safety and may only be opened by trained personnel. The main switch (red switch) is located on the left-hand side of the iQ-Control Panel. When switched on, touching any of the control components poses a risk of electric shock. The iQ-Control Panel contains sensitive electronic components. Any improper handling may result in damage to the XRGI® system.



The power factor corrector is electrically conductive even when the main switch disconnecter of the iQ-Control Panel is switched off.

The cover of the Power Unit is provided for your safety. In particular, be aware of the following when opening the Power Unit:

- The engine generates heat. Touching the engine and numerous other components poses a risk of burns.
- The protective cover conceals parts that rotate when the XRGI® system starts up and during operation. Touching these parts during operation can be fatal. Only allow skilled personnel authorised by EC POWER to touch components under the protective cover during operation. During visual inspections during operation, be careful not to let loose clothing, jewellery or hair get caught in moving parts.
- The generator and many other parts are connected to the power supply system. Touching non-isolated parts can be fatal.
- When in close proximity to an operating XRGI® system with the hood open, there is a hazard of hearing damage. Wear approved hearing protection when the cover is open.

2.3.7 EXPLOSIVE AND EASILY FLAMMABLE MATERIALS

Do not use or store any explosive or easily flammable materials (e.g., petrol, paper, paint) in the installation room of the XRGI® system. Do not use any sprays, solvents, cleaning materials that contain chlorine, paints, adhesives etc. in the vicinity of the XRGI® system. These substances can, in addition to the risk of ignition, lead to corrosion – including in the exhaust system.

2.3.8 COMBUSTION AIR SUPPLY

Check that the supply of combustion air to the XRGI® system is unimpeded. Do not position any equipment with extraction such as fans, tumble driers or dehumidifiers, in the vicinity of the XRGI® system without consulting your authorised EC POWER specialist.

Check with your authorised EC POWER specialist to ensure that there is still a sufficient supply of combustion air to the XRGI® system before fitting moisture-tight windows. The combustion air of the Power Unit should not contain any solvents or halogen compounds, which can cause corrosion and damage when the XRGI® system is operated. Halogen compounds are used in industry, trade and household products.



Closed air supply inlets can result in incomplete combustion and a build-up of carbon monoxide, with the possibility of poisoning.

SOURCES OF HALOGEN COMPOUNDS

Industrial sources	
Chemical cleaners	Trichloroethylene, tetrachloroethylene, hydrofluorocarbons
Degreasing baths	Perchloroethylene, trichloroethylene, methylene chloride
Printing houses	Trichloroethylene
Cooling equipment	Methyl chloride, trichlorofluoromethane, dichlorodifluoromethane
Domestic sources	
Cleaners and degreasing agents	Perchloroethylene, methyl chloroform, trichloroethylene, methylene chloride, carbon tetrachloride, hydrochloric acid
DIY sources	
Solvents and thinners	Chlorinated hydrocarbons
Spray cans	Hydrofluorocarbons (Frigen)

This list is not exhaustive.

The solvents used for cleaning and contained in adhesives and paints are crucial. Chemical cleaning and degreasing baths can be sources of halogen compounds, as are floor adhesives and other adhesives. Construction varnishes, paints and adhesives have been produced without halogenated hydrocarbons for some years. Air-borne halogen compounds are often released when thinners containing chlorinated hydrocarbons or adhesive removers containing chlorinated hydrocarbons are used, as well as new coats of paint in boiler rooms. Bleaching solutions and hydrochloric acid, which are frequently used for disinfection and cleaning, must also be considered as potential causes of corrosion.

Spray paints or adhesives containing CFCs are rarely used today by professional tradesmen. If the source of halogenated hydrocarbons cannot be completely eliminated (e.g., hairdressing salons, swimming pools, dry cleaning premises etc.), then the supply of combustion air has to be solely supplied from an uncontaminated area.

2.3.9 MODIFICATIONS TO THE XRGI® SYSTEM COMPOUNDS

Do not carry out modifications to the XRGI® system compounds without the prior written consent of EC POWER.

- Never install an additional cover or enclosure around the XRGI® system.
- The required minimum clearances must be strictly observed.

2.3.10 XRGI® ENGINE COOLANT

Only use XRGI® Engine Coolant in the engine circuit. The use of other coolants or additives may cause damage. The XRGI® Engine Coolant is to be filled via the expansion vessel in the Q-Heat Distributor, following the level markings.

2.3.11 PROPERTY DAMAGE CAUSED BY IMPROPER USE OF AND/OR UNSUITABLE TOOLS

Improper use of and/or unsuitable tools can cause damage. Always use appropriate tools!

2.3.12 MODIFICATIONS IN THE VICINITY OF THE XRGi® SYSTEM

Do not carry out modifications to the following equipment without the prior written consent of EC POWER:

- XRGi® system
- Gas, supply air, water and electricity pipes and cables
- Exhaust gas system
- Condensate drain
- Safety valve and drain pipe for the heating water
- Structural objects that could affect the operational safety of the XRGi® system

2.3.13 OPERATION WITH LIQUIFIED GAS (LPG)

Bleeding of the LPG tank when installing the XRGi® system:

The LPG supplier is responsible for the proper bleeding of the tank.

Avoid wrong gas type:

The use of a wrong type of gas leads to ignition and combustion noises as well as to fault shut-downs.

An unstable gas pressure supply is technically very unfavourable for an XRGi® system. To counteract this, the gas supply must be dimensioned by the appropriate supplier as required with tank placement, pipe sizes, evaporator and gas pressure regulator.

2.3.14 OPERATION WITH BIOGENIC GASES

Biogenic gas can be odourless. Therefore, installations with an XRGi® BIOGENIC system require the installation of appropriate gas detectors and gas detector shut-off devices.



Even small amounts of hydrogen sulphide are hazardous to health.

National and regional rules and guidelines for safety equipment for the installation and the building must be met. These rules and guidelines can, among other things, include:

- a flame arrester on the gas pipe to secure against flashback
- methane and H₂S sensors to activate shut-off of gas supply
- an external main switch related to monitoring methane and H₂S
- a manual main switch outside the installation room of the XRGi® system

All installation material must be approved for biogenic gas applications.

Also note that the additional components that may be necessary to operate the XRGi® system with biogenic gases (gas filter, gas pressure booster, etc.) may be subject to the zone classification regarding the ATEX regulations. When installing electrical materials, these components must be approved for installation in ATEX zones.

2.3.15 WORKING ON THE ELECTRICAL SYSTEM



Danger to life when working on electrical and electronic components. Only allow skilled and qualified electricians to perform work on electrical or electronic components in accordance with current, applicable electrical regulations.

2.3.16 SAFETY EQUIPMENT ON THE XRGI® SYSTEM



If the safety devices are disabled, bridged, manipulated, damaged or removed, or if the XRGI® system is operated with defective safety devices, there is a risk of injury. Safety devices must not be manipulated or overruled.

The XRGI® system features a range of safety features to ensure safe operation. The safety features include:

- Main switch disconnecter
- Sound insulation panels (all casing panels)

**Main switch disconnecter
on the iQ-Control Panel**



**Sound insulation cladding
on the Power Unit**



The safety and warning labels (stickers) attached to the XRGI® system must always be clearly visible, undamaged and complete. Replace damaged or dirty stickers. New stickers are available from EC POWER.

2.3.17 SAFETY AND WARNING LABELS ON THE XRGI® SYSTEM

The XRGI® system is equipped with a series of safety and warning labels to protect the system operator. The safety and warning labels include:



POWER UNIT

CAUTION! HOT SURFACE

This warning label warns of hot surfaces. Contact with hot surfaces presents a risk of burns.



Q-HEAT DISTRIBUTOR

CAUTION! HIGH TEMPERATURE/HOT LIQUID

This warning label warns of high temperature/hot liquid. Contact with hot liquids presents a risk of burns.



IQ-CONTROL PANEL

CAUTION! VOLTAGE

This warning label warns of dangerous electrical voltage. Electrical voltage is dangerous to the human body and may result in personal injury and property damage.

2.3.18 RESIDUAL RISKS

Not all residual risks can be completely eliminated by proper use or by adhering to the protective features described in this iQ User Manual. When installing the XRGi® system, ensure sufficient space is available to minimize residual risks. Ensure that the installation room is always free of obstructions such as ladders, tools, containers, boxes, etc., and is clean, dry, and well-lit.

The following are the residual risks. The actions in question are improper and therefore strictly prohibited.

- Slipping or falling due to water or dirt on the floor of the installation room.
- Burns due to intentional or unintentional contact with the XRGi® system due to non-compliance of the protective devices described in this iQ User Manual
- Tipping of loads when handling the packaged or unpacked XRGi® system using unsuitable lifting systems or due to unbalanced load distribution.
- Chemical hazards due to contact with chemicals, coolants, cleaning agents, etc. Observe the information in this XRGi® iQ User Manual as well as in the data sheets and on the labels of the system components used.

2.4 WARRANTY INFORMATION

Comply with the following requirements to uphold the warranty:

- Proper assembly, installation, commissioning, operation, and maintenance in accordance with the applicable EC POWER instructions.
- Regular maintenance in accordance with the applicable maintenance instructions, carried out exclusively by trained and EC POWER-authorized qualified personnel.
- Compliance with the gas specification for installations with an XRGi® BIOGENIC system (even short-term operation outside the specified parameters may affect the warranty).

Warranty exclusions: The guarantee excludes damage over which the manufacturer has no direct or indirect influence, such as:

- Faulty planning and assembly (e.g., fuel supply, hydronic and electrical connections, exhaust gas extraction)
- Commissioning, maintenance and repairs by persons not authorised by EC POWER
- Natural wear and tear
- Faulty, negligent handling, modifications, repairs
- Use of unsuitable operating materials (e.g. in oil filters, spark plugs) or non-approved lubricants
- Use of heating water (first fill) that does not meet applicable technical guidelines
- Chemical, electro-chemical and electrical influences
- Climatic or other effects outside the specifications given in the XRGi® documentation (e.g., insufficient ventilation, lightning, overvoltage, severe weather, fire, etc.)

The current version of the guarantee and warranty stipulations in the EC POWER A/S General Terms and Conditions apply.

RETURN OBLIGATIONS

EC POWER is obliged to take back XRGi® systems after their use. After decommissioning, XRGi® systems must be reused or recycled. Components that cannot be recycled must be disposed of in an environmentally friendly manner.

2.5 REGULATIONS, STANDARDS AND LAWS

Adhere to and comply with the provisions, regulations and guidelines applicable in the individual country when installing the XRGi® system.

3 OPERATING THE IQ-CONTROL PANEL

The following chapters describe how the XRGI® system is operated by the iQ-Control Panel. The operations described in these chapters can be executed by the owner and/or operator. Contact your EC POWER dealer should you have any questions related to the user manual.

3.1 USER INTERFACE

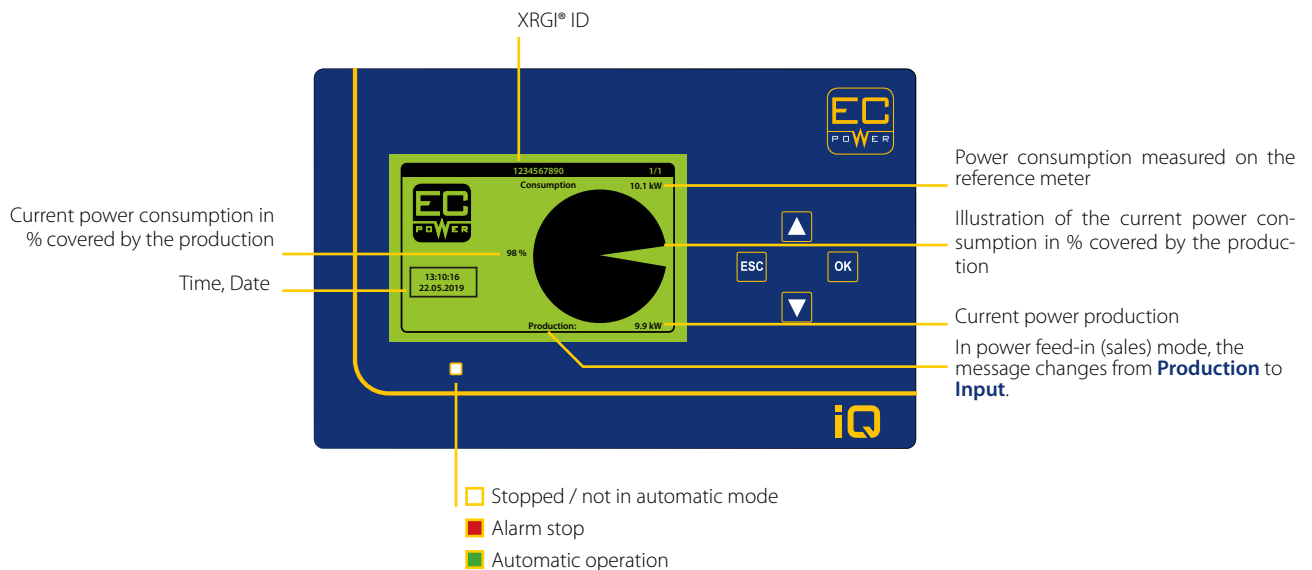
The XRGI® system is solely operated via the user interface on the iQ-Control Panel.

The four buttons on the user interface allow the following functions to be selected in the menu:

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> ■ Select menu item/function ■ Set value | 

 | <ul style="list-style-type: none"> ■ Choose menu item ■ Activate menu item |
| <ul style="list-style-type: none"> ■ Exit menu item ■ Exit function ■ Save entry |  | <ul style="list-style-type: none"> ■ Choose menu item ■ Activate menu item |
| <ul style="list-style-type: none"> ■ Select menu item/function ■ Set value |  | |

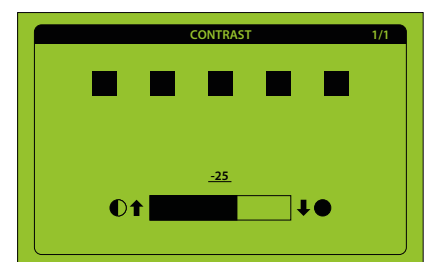
3.2 START PAGE



3.2.1 CONTRAST

To adjust the display contrast, proceed as follows:

- Press any button on the user interface to activate the display.
- Simultaneously press the two buttons ▲ ▼ to enter the **CONTRAST** menu item.
- Press **OK** to activate the contrast adjustment.
- Now adjust the contrast by pressing either the ▲ button (brighter) or the ▼ button (darker).
- Press **ESC** to save the settings.
- Press **ESC** again to return to the start page.



3.3 MAIN MENU

3.3.1 START/STOP



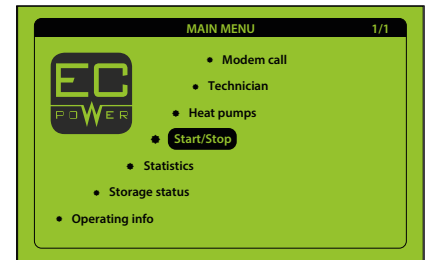
There is a risk of injury if the prerequisites for safe operation are not met.

- All safety equipment and/or devices and protective measures must be available and functioning. Safety equipment and/or devices may not be removed or manipulated.
- Make sure that the XRGi® system is professionally wired and commissioned.

3.3.1.1 MANUAL START

Start the XRGi® system as follows:

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Start/Stop** by using the ▲ ▼ buttons and press **OK** on the user interface.



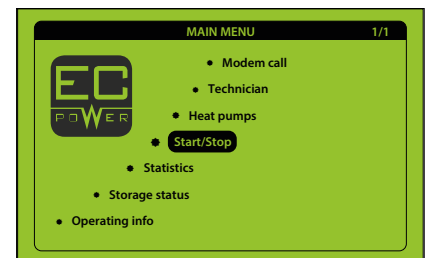
- Press **OK** on the user interface to start the XRGi® system.



3.3.1.2 MANUAL STOP

Stop the XRGi® system as follows:

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Start/Stop** by using the ▲ ▼ buttons and press **OK** on the user interface.



- Press **OK** on the user interface to stop the XRGi® system.



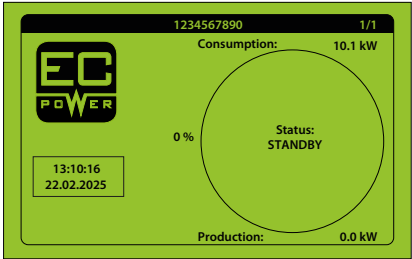
3.3.1.3 AUTOMATIC OPERATION

When the XRGI® system is operated fully automatically, the iQ-Control Panel ensures a constantly optimized and economical coverage of the respective power and heat requirements.

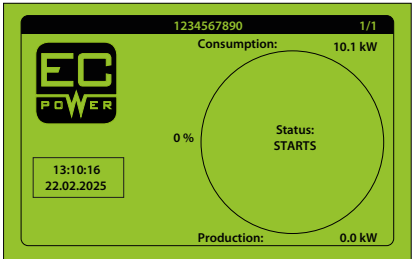
The electricity and heat consumption will be continuously monitored during the automatic operation mode to ensure operation is as cost effective as possible.

In automatic mode, the XRGI® system switches on and off as required, as shown below:

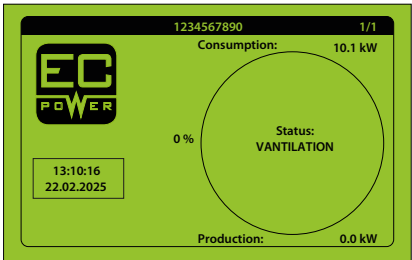
STANDBY: Awaits an increase in the electricity and heat requirement.



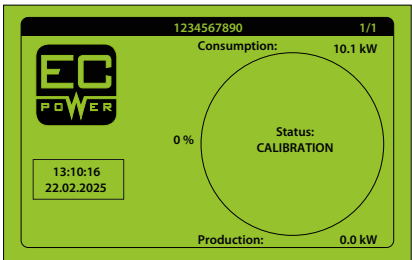
STARTS: The system starts up.



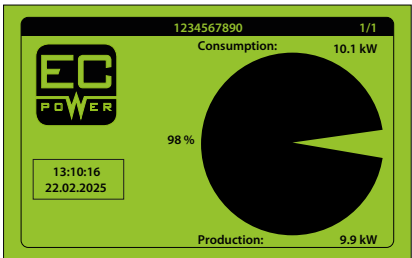
VENTILATION: The fuel metering system and motor block will be ventilated with fresh air.



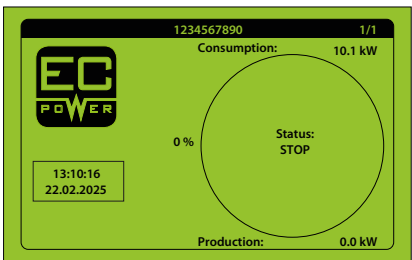
CALIBRATION: The iQ-Control Panel inspects the function of the system.



NORMAL: Automatic regulating of the performance



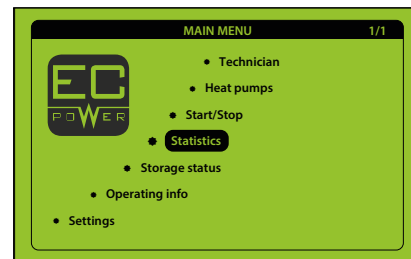
STOP: The system switches off due to insufficient electricity or heat demands.



3.3.2 STATISTICS

The iQ-Control Panel provides a 24-hour and weekly statistics for power consumption and generation. Both functions have the same structure.

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Statistics** by using the ▲ ▼ buttons and press **OK**.

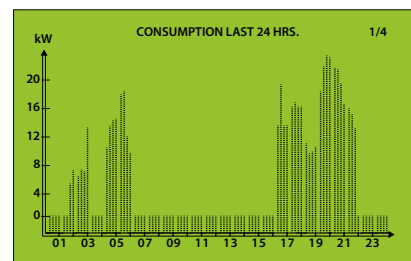


3.3.2.1 24 HOUR STATISTICS

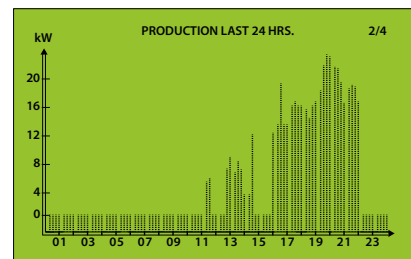
The kW axis is automatically scaled to display the statistics as precisely as possible. The time axis displays the 24 hours and the power performance levels as average for 15 minutes, i.e.: If a production of 13,0 kW is displayed for 14:00, this is the average of the period of 13:45-14:00. The statistics will be updated every 15 minutes.

- Use the ▲ ▼ buttons to go to the next pages and switch between consumption and production.
- Press **ESC** to return to the main menu.

CONSUMPTION OF THE LAST 24 HOURS



PRODUCTION OF THE LAST 24 HOURS

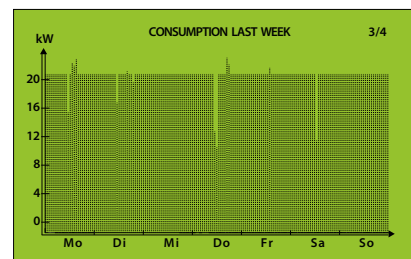


3.3.2.2 WEEKLY STATISTICS

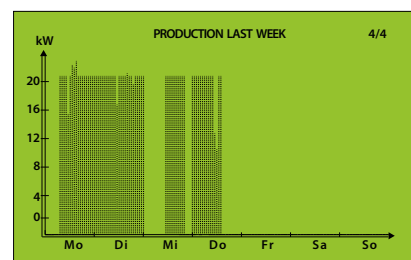
The kW axis is automatically scaled to display the statistics as precisely as possible. The time axis displays the days of the week. Every column is an average of the corresponding 24 hours. The statistics are updated at midnight.

- Use the ▲ ▼ buttons to go to the next pages and switch between consumption and production.
- Press **ESC** to return to the menu.

CONSUMPTION OF THE LAST WEEK



PRODUCTION OF THE LAST WEEK

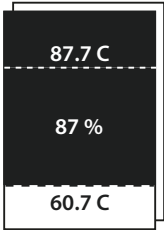


3.3.3 HEAT STATUS

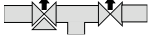
The iQ-Control Panel provides an overview of the heat status of the XRGI® system.

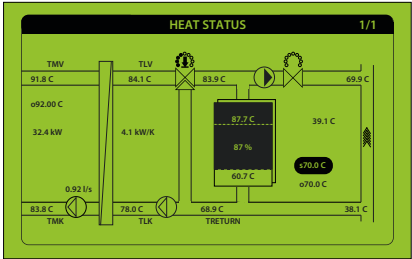
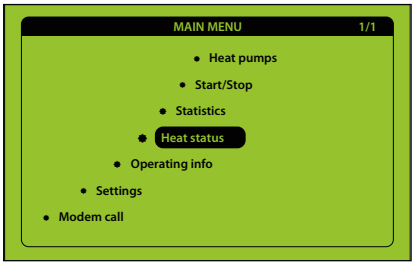
- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Heat status** by using the ▲ ▼ buttons and press **OK**.

DESIGNATIONS

TMV	Flow temperature from the engine
TMK	Return flow temperature to the engine
TLV	Flow temperature after passing through the heat exchanger
TLK	Return temperature before reaching the heat exchanger
32.4 KW	Heat production/output of the engine
kW/K	Efficiency of the heat exchanger in kW/K (below 2.5 kW/K is critical)
T RETURN	Return temperature from the Storage Tank and network to the Q-Heat Distributor
s70.00°C	Target value for the flow temperature to the heating network (adjustable)
o92.00°C	Operative target value / obtainable temperature
69.9 °C	Flow temperature to the heating grid
38.1 °C	Return flow temperature from the heating grid
	Status of the Storage Tank
	Upper temperature
	Fill level
	Lower temperature

VALVE IDENTIFICATION

	Valve in standby position
	Close valves
	Open valves
	Valves closed
	Valves opened

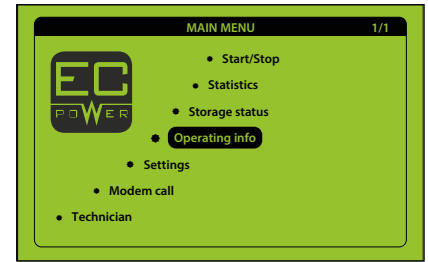


AUX TEMP TRACKER 2/2	
Aux Temperature 1:	24.5 C
Aux Temperature 2:	24.4 C
Aux Temperature 3:	24.3 C
Aux Temperature 4:	24.9 C

3.3.4 OPERATING INFO

The iQ-Control Panel provides an overview of the operating information of the XRGi® system, e.g. operating hours, power and heat production and time until the next scheduled maintenance.

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Operating info** by using the ▲ ▼ buttons and press **OK**.



WITH POWER SALES

Operating hours:	2368 H
Power consumption:	46181 kWh
Power production:	20259 kWh
Power sales:	0 kWh
Heat production:	53842 kW
Fuel consumption:	46210 kWh
Time to service:	4000 H

WITHOUT POWER SALES

Operating hours:	2368 H
Power consumption:	46181 kWh
Power production:	20259 kWh
Heat production:	53842 kW
Fuel consumption:	46210 kWh
Time to service:	4000 H

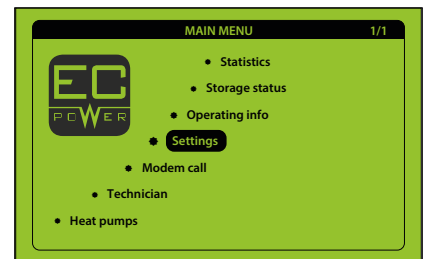
3.3.5 SETTINGS

The iQ-Control Panel provides the possibility to change the setting values of the selected operating mode of the XRGi® system. The values are normally set during commissioning. If you still want to change values, proceed carefully. It is recommended that you write down the initial values so that, when necessary, you can reset them later. If you are unsure whether you should or are allowed to change a value, consult your EC POWER dealer first.



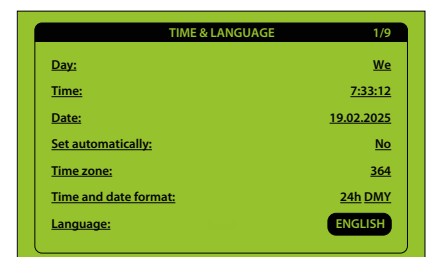
Incorrect setting values can lead to a malfunction or shut down of the XRGi® system.

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Settings** by using the ▲ ▼ buttons and press **OK**.



3.3.5.1 TIME & LANGUAGE

- Use the ▲ ▼ buttons to go to the desired value line.
- Press **OK** to activate the value line.
- Use the ▲ ▼ buttons to change the new values.
- Press **ESC** to save the new values.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the menu.

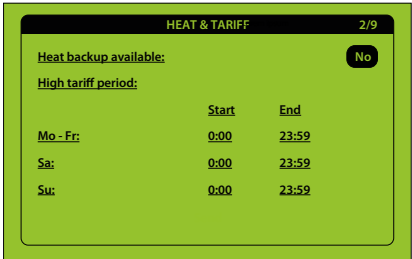


3.3.5.2 HEAT & TARIFF

If there is a heat backup, the heating installation is equipped with a boiler, for example, and the XRGI® system is to be switched off during low load periods.

HEAT BACKUP

- Go to **Heat backup available** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: A heating backup is available (for example a boiler). The iQ-Control Panel switches on the boiler as a heat source in periods of low heat/power demand. The XRGI® system remains switched off during these periods and the iQ-Control Panel awaits higher heat/power demand.
No: The XRGI® system also provides basic load heating outside of the high tariff demands periods.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the menu.



If the boiler is temporarily out of order, change the setting to **No**. The XRGI® system ensures heat production at all times.

HIGH TARIFF PERIOD

If the installation has only one electricity tariff, all 24 hours of the day are set as high tariff period. If there are multiple tariffs, **Start** and **End** are entered for the specific tariff periods.

3 periods are possible: Monday to Friday
 Saturdays
 Sundays

Example of an entry

24 HOURS HIGH TARIFF

HIGH TARIFF IN SPECIFIC TIME PERIODS

NO HIGH TARIFF WITHIN 24 HOURS

Start	End
00:00	23:59
00:00	21:00
00:00	00:00

Using the entered time periods, the iQ-Control Panel optimises the heat and power production.

If the XRGI® system is preferably to work at certain times of the day, these times can be programmed. The setting selects whether the XRGI® system is to operate or be switched off .

- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

The changes take effect only a few seconds after they have been entered. The settings can be changed at any time, even during automatic mode.

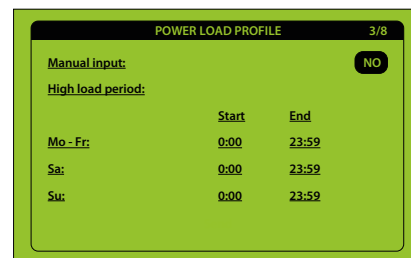
3.3.5.3 POWER LOAD PROFILE

If a reference meter for the power consumption of the object is available and switched on, the menu item **POWER LOAD PROFILE** is displayed here. Otherwise, the menu item **HEAT CONTROLLED** is displayed (see 3.3.5.4 Heat Controlled).

In this menu, load periods can be specified. These are the periods when power consumption is highest and is used to optimise the heat and power production.

MANUAL INPUT

- Go to **Manual input** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: Manual adjustment of the load periods.
No: Automatic adjustment of the load periods. The periods are readjusted each day at midnight according to the measured consumption.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



HIGH-LOAD PERIOD

For manual setting, the period with the highest power consumption should be entered.

3 periods are possible: Monday to Friday
 Saturdays
 Sundays

Example of an entry

	Start	End
24 HOURS HIGH LOAD	00:00	23:59
HIGH LOAD IN SPECIFIC TIME PERIODS	00:00	21:00
NO HIGH LOAD WITHIN 24 HOURS	00:00	00:00

Using the entered time periods optimises the controlling of the heat and power production.

If the XRGi® system is preferably to work at certain times of the day, these times can be programmed. The setting selects whether the XRGi® system is to operate or be switched off.

- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the mainmenu.

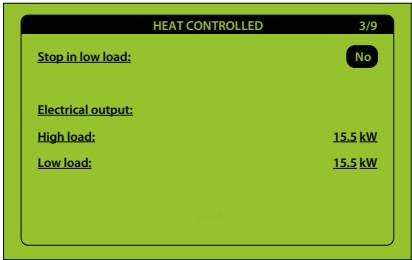
The changes take effect only a few seconds after they have been entered. The settings can be changed at any time, even during automatic mode.

3.3.5.4 HEAT CONTROLLED

Entering the consumption values in high and low load as well as the associated high load periods the consumption pattern of the XRGi® system will be set.

STOP IN LOW LOAD PERIOD

- Go to **Stop in low load** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: The XRGi® system is preferably to switch off at low load. If a heat backup is available, the system will switch off in cases of low loads. If there is no heat backup available, the XRGi® system will only operate to store a minimum of heat in the Storage Tank.
No: The XRGi® system will not switch off at low load.



- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the menu.

HIGH-LOAD PERIOD

High load period determines the times in which power should preferably be produced. Outside these periods, the low load values apply.

3 periods are possible: Monday to Friday
 Saturdays
 Sundays

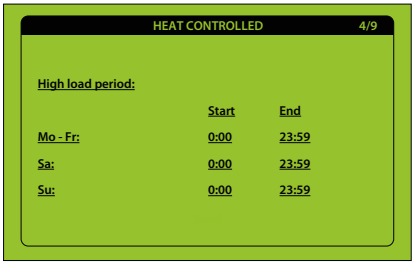
Example of an entry

	Start	End
24 HOURS HIGH LOAD	00:00	23:59
HIGH LOAD IN SPECIFIC TIME PERIODS	00:00	21:00
NO HIGH LOAD WITHIN 24 HOURS	00:00	00:00

Using the entered time periods optimises the controlling of the heat and power production.

If the XRGi® system is preferably to work at certain times of the day, these times can be programmed. The setting selects whether the XRGi® system is to operate or be switched off .

- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



The changes take effect only a few seconds after they have been entered. The settings can be changed at any time, even during automatic mode.

3.3.5.5 POWER SALES

This enables the setting for whether power should be fed into the grid.

POWER SALES

- Go to **Power sales** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: Power is fed into the grid. The iQ-Control Panel will attempt to sell the power within the entered periods, provided that the produced heat is consumed.
No: Power is not to be fed into the grid. The entered sales periods will not be applied. The iQ-Control Panel will attempt to generate the resulting performance on the basis of the manual entries or the reference measurement.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

POWER SALES PERIOD

The periods agreed with the grid operator are entered.

3 periods are possible: Monday to Friday
 Saturdays
 Sundays

Example of an entry

	Start	End
24 HOURS POWER SALE	00:00	23:59
POWER SALE IN SPECIFIC TIME PERIODS	00:00	21:00
NO POWER SALE WITHIN 24 HOURS	00:00	00:00

Using the entered time periods optimises the controlling of the heat and power production.

If the XRGi® system is preferably to work at certain times of the day, these times can be programmed. The setting selects whether the XRGi® system is to operate or be switched off.

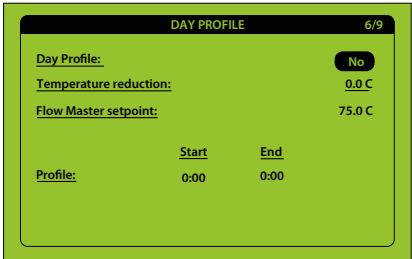
- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

The changes take effect only a few seconds after they have been entered. The settings can be changed at any time, even during automatic mode.

3.3.5.6 DAY PROFILE

This menu item is only shown in the main menu if af Flow Master is connected to the XRGI® system. Here you can reduce the output of the XRGI® system during specific periods, for example overnight.

- Go to **Day Profile** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: Under **Temperature reduction** you can set the desired reduction of the Flow Master setpoint temperature.
No: The Flow Master setpoint temperature is not adjustable.
- Press **ESC** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



TEMPERATURE REDUCTION

- Go to **Temperature reduction** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to enter the desired value.
- Press **ESC** to save the entry.

Example of an entry

	Start	End
PROFILE	23:00	05:59

Using the entered time period optimises the controlling of the heat and power production.

If the XRGI® system is preferably to work at a certain time of the day, this time can be programmed. The setting selects whether the XRGI® system is to operate or be switched off .

- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

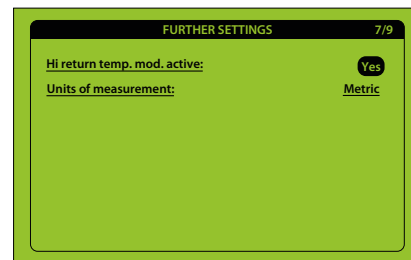
The changes take effect only a few seconds after they have been entered. The setting can be changed at any time, even during automatic mode.

3.3.5.7 FURTHER SETTINGS

HIGH RETURN TEMPERATURE MODULATION

The output of the XRGi® system can be lowered when return temperatures are high in order to reduce the number of operational shutdowns and increase the number of operating hours.

- Go to **Hi return temp. mod. active** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.
Yes: The XRGi® system lowers its output until the return temperature has dropped sufficiently.
No: The XRGi® system shuts off when the return temperature has reached a certain value.
- Press **ESC** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



UNITS OF MEASUREMENT

This function allows you to set the units of measurement shown in the iQ-Control Panel.

- Go to **Units of measurement** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to choose the desired measurement unit.
- Press **ESC** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

3.3.5.8 OPERATION PERIODS

This menu item allows you to set the desired operating periods of the XRGi® system.

3 periods are possible: Monday to Friday
Saturdays
Sundays

Example of an entry

	Start	End
24 HOURS OPERATION	00:00	23:59
OPERATION IN SPECIFIC TIME PERIODS	00:00	21:00
NO OPERATION WITHIN 24 HOURS	00:00	00:00

Using the entered time periods optimises the controlling of the heat and power production.

If the XRGi® system is preferably to work at certain times of the day, these times can be programmed. The setting selects whether the XRGi® system is to operate or be switched off.

- Use the ▲ ▼ buttons to go to the time to set and press **OK** on the user interface.
- Use the ▲ ▼ buttons to set the hours and press **OK**; the cursor jumps to minutes.
- Use the ▲ ▼ buttons to set the minutes and press **OK** to finish the entry.
- Press **ESC** to toggle between minutes and hours.
- Press **OK** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



The changes take effect only a few seconds after they have been entered. The settings can be changed at any time, even during automatic mode.

3.3.5.9 STOCK ELECTRICITY PRICE SERVICE



The feature described in this section is only available for software version 2025.x or higher.

This menu is used to set whether the XRGi® system should switch off when the stock electricity price is zero or negative. The electricity price signal, which is required for this function, is sent fully automatically to all XRGi® systems on a daily basis through the existing data connection to the EC POWER service database.

To secure functionality, the full installation address of the XRGi® system, including zip code, must be entered in the EC POWER service database during commissioning of the XRGi® system.

In addition, the time zone of the XRGi® system location must be entered in the iQ-Control Panel.

TIME ZONE

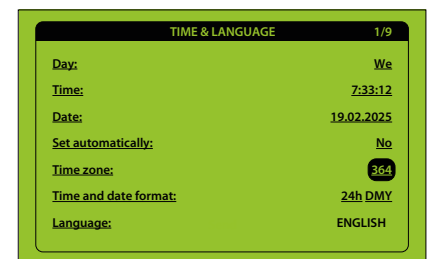
The time zone code **364** is set as default and is the standard for CET (Central European Time). If you are located outside of CET, it is important to set the time zone manually.

- Choose the relevant time zone code in the table below. The time zone codes take summer time into account.

Albania	464	Hungary	426	Poland	472
Andorra	418	Iceland	482	Portugal	439
Austria	469	Ireland	430	Romania	425
Belgium	424	Italy	455	San Marino	457
Bosnia and Herzegovina	458	Latvia	454	Serbia	421
Bulgaria	461	Liechtenstein	467	Slovakia	423
Czech Republic	453	Lithuania	470	Slovenia	440
Croatia	473	Luxembourg	442	Spain	443
Cyprus	449	Malta	444	Sweden	462
Denmark	429	Moldova	428	Switzerland	475
Estonia	463	Monaco	445	Turkey	435
Finland	433	Montenegro	452	Ukraine	438
France	451	Netherlands	417	United Kingdom	480
Germany	422	North Macedonia	460		
Greece	419	Norway	450		

To set the time zone of the XRGi® system, proceed as follows:

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Settings** by using the ▲ ▼ buttons and press **OK**.
- Go to **Time zone** and press **OK**.
- Use the ▲ ▼ buttons to set the digit and press **OK**; the cursor jumps to the next digit.
- Press **ESC** to save the entry.



STANDBY IF STOCK PRICE IS NEGATIVE

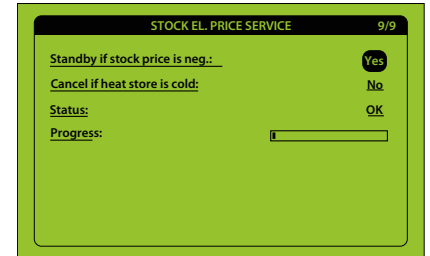
- Go to **Standby if stock price is neg.** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.



Yes: The XRGi® system switches off when the stock electricity price is zero or negative. The status of the electricity price signal reception is displayed under **Status** and **Progress**.

No: The XRGi® system runs independently of the electricity price signal.

- Press **ESC** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.



If a connection cannot be established, is deactivated or if an error occurs during the transmission of electricity price data, no electricity price signal can be transmitted. In these cases, the XRGi® system cannot switch off when stock electricity prices are zero or negative, even though **Standby if stock price is neg.** has been activated. The status display then shows the message "Waiting".



If **Standby if stock price is neg.** is activated, time and date of the iQ-Control Panel can no longer be set manually.

CANCEL IF HEAT STORE IS COLD

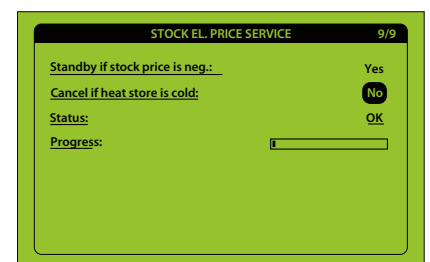
Activating this function deactivates **Standby if stock price is neg.**, as soon as the Storage tank of the XRGi® system has become cold. This also applies if no electricity price signal can be transmitted. In such cases, the XRGi® system continues to operate even if the electricity price is zero or negative. Statistics for electricity produced when **Cancel if heat store is cold** is active can be found in the EC POWER service database under "Statistics".

- Go to **Cancel if heat store is cold** by using the ▲ ▼ buttons and press **OK** on the user interface.
- Use the ▲ ▼ buttons to select **Yes** or **No**.

Yes: The function **Standby if stock price is neg.** is deactivated if the Storage Tank is cold.

No: The function **Standby if stock price is neg.** is not deactivated if the Storage Tank is cold.

- Press **ESC** to save the entry.
- Use the ▲ ▼ buttons to go to the next pages.
- Press **ESC** to return to the main menu.

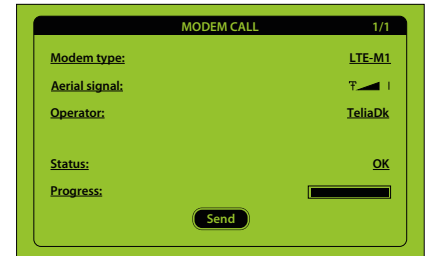
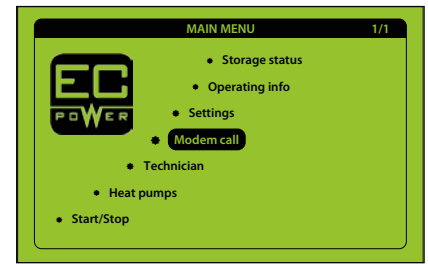


3.3.6 MODEM CALL

Service and operating information is sent to the EC POWER service database at regular intervals (about twice a day) via the Internet or Ethernet connection of the XRGi® system. These can also be called up with a customer log-in for the service database in agreement with your EC POWER dealer.

To test the connection or to update the service database, the modem call can be triggered manually:

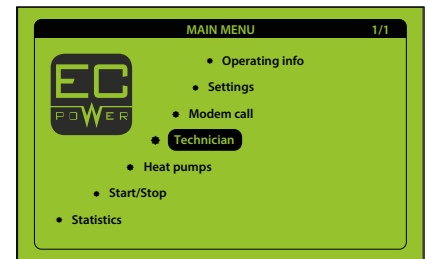
- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Modem call** by using the ▲ ▼ buttons and press **OK**. The prompt **MODEM CALL** appears.
- Press **OK**. The modem call will be initialised.



3.3.7 TECHNICIAN

This menu item provides password-protected access for installation and service technicians.

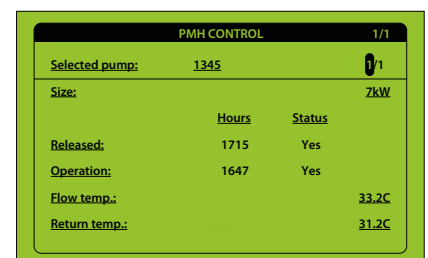
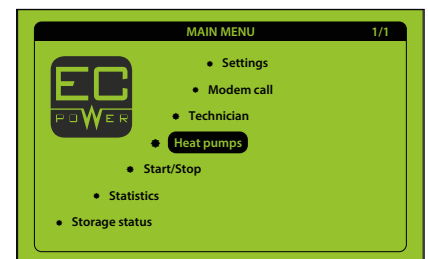
- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Technician** by using the ▲ ▼ buttons and press **OK**.
- The prompt **TECHNICIAN LOGIN** appears. Enter your ID no and password by using the ▲ ▼ buttons.
- Go to **Log in** by using the ▲ ▼ buttons and press **OK**.



3.3.8 HEAT PUMPS

The iQ-Control Panel provides an overview of the operation of the heat pumps connected to the XRGi® system, such as flow and return temperature or operating hours.

- Press any button on the user interface to activate the display.
- Press any button again to enter the main menu.
- Go to **Heat pumps** by using the ▲ ▼ buttons and press **OK**.



4 ERRORS AND TROUBLESHOOTING



Hazards during troubleshooting.

- To prevent any hazards, danger, risks to yourself and/or damage(s) to the XRGi® system, you should assign any troubleshooting works to your EC POWER dealer.

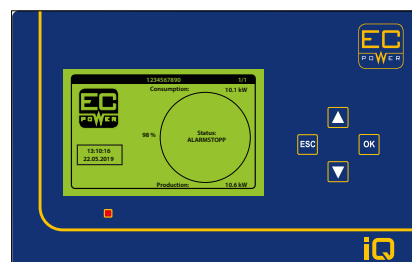
4.1 DISPLAY FOR ERROR NOTIFICATIONS

The XRGi® system switches off automatically if an error occurs during operation. The LED under the user interface of the iQ-Control Panel lights up red to indicate errors. The error is automatically transmitted to the service database.

ERROR DESCRIPTION FOR ALARMS

- Press any button on the user interface to activate the display.
- Press any button again to get an error description.

A restart of the XRGi® system is necessary after consultation with a service technician. Consequential damages due to an incorrect restart will invalidate any warranties.

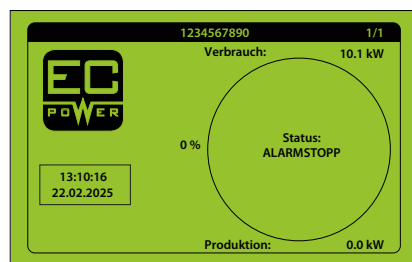


The warranty does not cover any consequential damage caused by improper restarting of the XRGi® system.

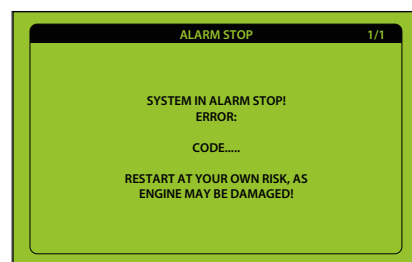
ACKNOWLEDGING ALARMS

Identify and professionally rectify the cause of the error before deleting the fault alert.

- Press **OK** on the user interface to reset the alarm to zero.



Hazards from non-rectified faults.



5 CARE AND MAINTENANCE

Only allow persons authorised by EC POWER to carry out maintenance work.

5.1 CARE

Use a damp cloth and a little soap to clean the casing of your equipment. Never use abrasive agents or cleaning agents which could damage the plastic casing or operating elements.

5.2 MAINTENANCE



Before maintenance, read the EC POWER “XRGi® Maintenance Instruction” carefully. Only allow persons authorised by EC POWER to carry out maintenance. Contact your EC POWER dealer.

The prescribed maintenance work and intervals are essential for the safe and trouble-free operation of XRGi® systems. Only allow EC POWER or a person/maintenance company authorised by EC POWER to perform this work to validate any warranty claims.

SERVICE INTERVAL INDICATION DISPLAY

You can monitor the operating hours of your XRGi® system in the EC POWER service database. This also indicates when your XRGi® system is due for its next service.

Inform your EC POWER dealer and instruct them to perform the maintenance. If no maintenance is indicated, maintenance on your XRGi® system is needed after a period of no more than 2 years. The service booklet must be filled out and signed on site by the service technician after every maintenance.



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