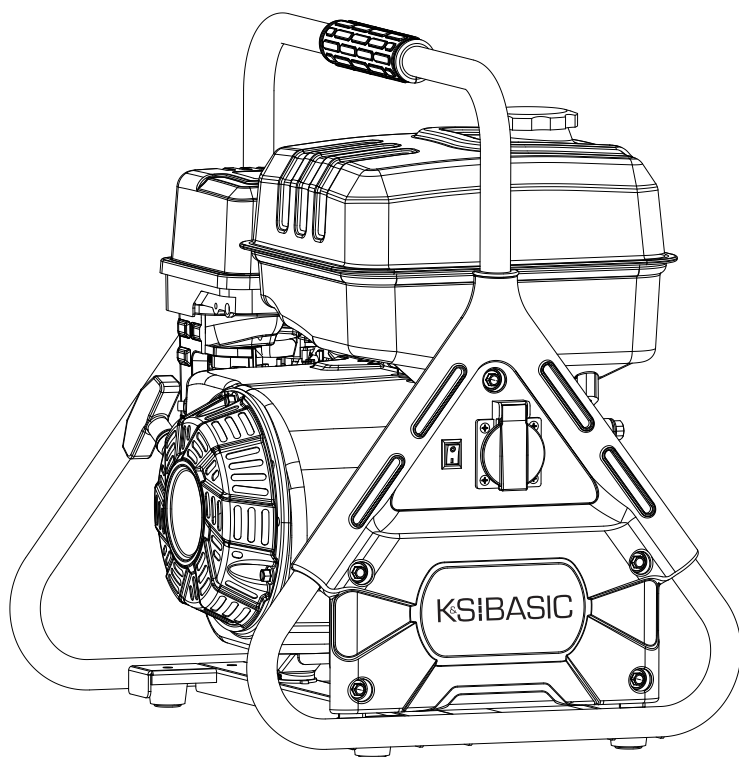


K&S*i*BASIC

SIMPLE ENERGY

Inverter Generator

KSB 31i





Thank you for your purchase of **K&S Basic®** products. This manual contains a brief description of safety, setup and use. More information can be found on the official importer's website in the support section: **konner-sohnen.com/manuals**

You can also go to the support section and download the manual by scanning the QR code or on the website of the official importer of **K&S Basic®** at **www.konner-sohnen.com**



We care about the environment, therefore, we consider it expedient to save paper and leave in print a short description of the most important sections.



Be sure to read the full version of the manual before getting started!



The manufacturer of **K&S Basic®** products reserves the right to make changes that may not be reflected in this manual, namely:

- The manufacturer reserves the right to make changes in the product design, configuration and construction.
- The images and drawings in this manual are for reference only and may differ from the actual components and inscriptions on the products.

Contact information that you are free to use in case of any problems can be found at the end of this manual. All information in this manual is correct to the best of our knowledge and belief at the date of its publication. The current list of service centers can be found on the official importer's website at **www.konner-sohnen.com**



ATTENTION – DANGER!



Failure to follow the recommendations marked with this sign may lead to serious injury or death of the operator or third parties.



IMPORTANT!



Useful information while operating the machine.

Safety symbols and description of inscriptions can be found in the full electronic version.

SAFETY INFORMATION

1

Do not use the generator in rooms with poor ventilation or in conditions of excessive humidity. Do not place the generator in water or on moist soil. Do not expose the generator to rain, snow, as well as to direct sunlight for a long time. Place the generator on a flat, hard surface, away from flammable liquids/gases (at a minimum distance of 1 m). Install the generator at a distance of not less than 1 m from the front control panel and not less than 50 cm on each side, including the upper part of the generator. Keep unauthorized persons, children, and animals away from work area. Wear safety shoes and gloves.



ATTENTION – DANGER!



When installing the generator, pay attention to the capacity of electrical appliances and their starting current, which may be several times higher than the rated current. The generator cannot run in overload conditions when starting consumers with an inrush current higher than the generator's maximum output.



ATTENTION – DANGER!



As exhaust gases contain poisonous carbon dioxide (CO₂) and carbon monoxide (CO) gases which are dangerous for life, it is strictly forbidden to install the generator in residential buildings, premises connected to residential buildings by a common ventilation system, other rooms from which exhaust gases may enter living premises.

**ATTENTION – DANGER!****The device generates electricity. Follow safety precautions to avoid electric shock.****IMPORTANT!****The generator should be used as an IT or TN system based on the application. Earthing and additional protective measures such as insulation monitoring or protection against accidental contact (residual current device) must be provided based on the application and the system used.**

The generator produces electricity that may lead to an electric shock while neglecting compliance regulations. K&S Basic generators were initially designed as an IT system with basic protection by insulation of hazardous live parts according to DIN VDE 0100-410. The generator housing is insulated from the current-carrying L and N conductors. The generator must be grounded in all cases, except for an IT system with an insulated neutral wire and bonding. A grounded IT system requires the use of an insulation monitoring device. Further details regarding the use of the generator in IT and TN systems can be found on our website or requested from our technical support. Wires with damaged or spoiled insulation should be replaced. You should also replace worn, damaged or rusty contacts.

**IMPORTANT!****It is forbidden to connect to the generator devices which can generate current pulses and direct energy towards the generator (voltage stabilizers, devices with electronic brakes, on-grid and hybrid inverters, etc.).**

The generator and power consumers form a closed system, with elements affecting each other. This system is physically different from the public network since it is significantly affected by factors such as unbalanced phase load and non-linear current consumption by power consumers that can cause damage to the generator and power consumers connected to it.

**ATTENTION – DANGER!****Be careful. Do not operate the generator, if you are tired, under the influence of drugs or alcohol. Inattention may cause a serious injury.****IMPORTANT!****Using device for other purposes deprives the right for free warranty.**

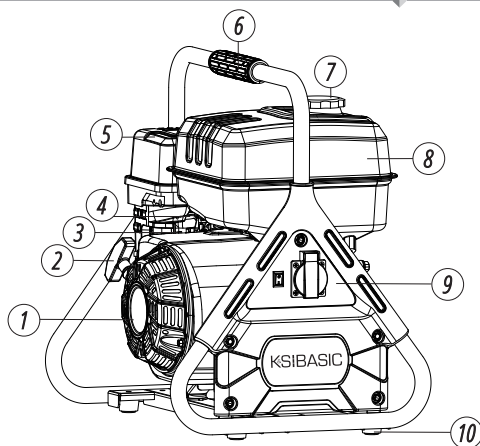
PRECAUTIONS WHEN WORKING WITH GASOLINE GENERATOR

1.2

Do not start the generator operation upon presence of electric load! Disconnect the load before you stop the engine. **Only unleaded gasoline is recommended for the generator.** It is forbidden to use kerosene or other fuel types. Before running the generator, it is necessary to define the place and means of its emergency stop. Do not refuel the running generator.

**ATTENTION – DANGER!****Fuel contaminates the land and groundwater. Do not allow the leaking gasoline from the tank!**

1. Engine
2. Manual starter
3. Air choke
4. Carburetor
5. Air filter
6. Carrying handles
7. Fuel tank cap
8. Fuel tank
9. Control panel
10. Antivibration supports



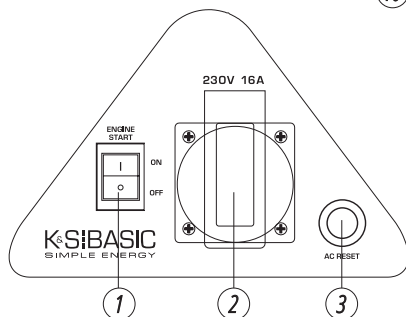
1. 1×16A AC (230V) outlet
2. Engine switch
3. Reset button



IMPORTANT!



Manufacturer reserves the right to make changes and/or improvements in design, components set and technical attributes without notice and without incurring obligation. The pictures in this manual are schematic and may not match the parameters of original product.



SPECIFICATIONS

3

Model	KSB 31i
Voltage/Frequency	230 V/50 Hz
Maximum/Nominal power	3,0 kW/2,8 kW
Current (max.)	13A
Outlets	1×16A
Engine start	manual
Fuel tank volume	5 l
Working time at 50% load (gasoline fuel)*	4 h
Noise level L_{pa} (7m)/L_{wa}, dB	71/96 dB
Engine model	KSB 210i
Engine volume	208 cm ³
Engine type	gasoline, 4 stroke cycle engine
Engine power	5,4 hp
Crankcase volume	0,6 l
Power factor, cos φ	1
Net dimensions (L×W×H)	495×385×495 mm
Net weight	23 kg
Protection class	IP23M
Nominal voltage tolerance – max. 5%	

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure reliability and increase the engine service life, peak powers may be slightly limited by circuit breakers.

The optimal operating conditions are ambient temperature of 17-25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50-60%. Under these environmental conditions, the generator can provide maximum performance in terms of the declared specifications.

In the event of deviations from these environmental indicators, the generator performance may vary.

Please note that continuous loads exceeding 80% of the generator's rated power are not recommended in order to extend its service life.

TERMS OF USE OF INVERTER GENERATOR

4

It is recommended to ground the generator before operating it for the first time. Before starting the device, remember that the total power of the connected power consumers should not exceed the nominal power of the generator.



IMPORTANT!



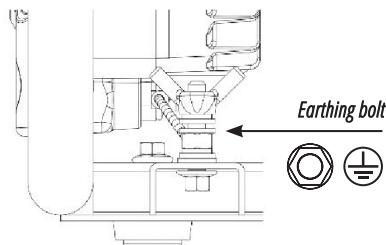
Make sure that the control panel, the blinds and the underside of the inverter are well cooled and protected against the ingress of small solids, dirt, and water. Improper operation of the cooler can cause damage to the motor, inverter or alternator.

GENERATOR OPERATION

5

EARTHING BOLT

In all cases, except for an IT system with an insulated neutral wire and bonding, the generator earthing bolt must be connected to the grounding circuit with a flexible copper conductor with a cross-sectional area of at least 6 mm².



CHECK BEFORE GETTING STARTED

6

CHECKING THE FUEL LEVEL

1. Unscrew the fuel cap and check the fuel level in the tank.
2. Fill the fuel tank to the fuel filter level.
3. Tighten the fuel cap securely.

Recommended fuel: Unleaded gasoline

Fuel tank volume: 5 l.



IMPORTANT!



Wipe up spilled fuel immediately with a clean, dry, soft cloth, as the fuel may harm painted surfaces or plastic parts.



IMPORTANT!



Use only unleaded gasoline. Using leaded gasoline can cause serious damage to the inside of the engine.

CHECK THE OIL LEVEL

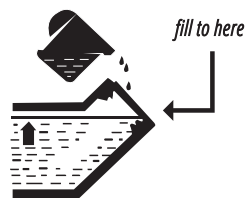
Generator is transported without the motor oil. Please don't start the engine without filling the sufficient amount of motor oil.

1. Unscrew the oil dipstick and wipe it out with a clean cloth.
2. Fill the crankcase with engine oil. The recommended amount of oil for each model is indicated in the specification chart.
3. Insert the dipstick without screwing it in.
4. Check the oil level by a mark on the oil dipstick.
5. Add oil if its level is below the mark on the oil dipstick.
6. Screw on the dipstick.

Recommended engine oil: SAE 10W-30, SAE 10W-40.

Recommended engine oil grade: API Service SE type or higher.

Motor oil quantity: 0,6 l.



GETTING STARTED

7

Before starting the engine, make sure that the rated power of power consumers matches with the power of generator. Do not exceed the nominal power of the generator. **Do not connect any devices before you start the engine!**



IMPORTANT!



Do not change the controller settings in terms of the amount of fuel or speed governor (this adjustment was made at the factory). Otherwise, this may result in changes in the engine operation or its failure.



ATTENTION – DANGER!



In the power supply mode, the generator should operate no longer than 1 minute in the range from nominal to maximum power.



ATTENTION – DANGER!



Standby generators should not run continuously (e.g. by adding fuel to the tank or connecting a large fuel tank) or longer than recommended: 4-6 hours for gasoline generators (depending on load).

This material is for informational purposes only and does not constitute a manual for installing the equipment or connecting it to the mains, but we strongly recommend that you read the instructions below. Equipment connection must always be carried out by a certified electrician responsible for the installation and electrical connection of the equipment according to local laws and regulations. The manufacturer assumes no liability for improper connection of the equipment or for any material or physical damage that may result from improper installation, connection or operation of the equipment.

COMMISSIONING

1. Fill the crankcase with engine oil. The recommended amount of oil for each model is indicated in the specification chart.
2. Check oil level with an oil dipstick. It should be between the MIN and MAX marks on the oil dipstick.
3. Check fuel level.
4. Check the air filter for correct installation.

IN THE FIRST 20 OPERATING HOURS OF THE GENERATOR, THE FOLLOWING REQUIREMENTS SHOULD BE MET:

1. During commissioning, do not connect power consumers, the power of which exceeds 50% of the nominal (operating) power of the device.
2. After the first 20 operating hours, be sure to change the oil. It is better to drain oil while the engine is still hot after operation to ensure quick and complete oil draining.
3. Check and clean the air filter, fuel filter and spark plug.

ENGINE START



IMPORTANT!



Each time you start the generator, be sure to check oil and fuel level.


IMPORTANT!


Before starting the generator, connect the ground wire to the ground terminal.

1. Check oil level.
2. Check fuel level.
3. Open fuel valve (Fig. 1, "ON" position).
4. Close the choke (Fig. 2, "OFF" position).
5. Set ENGINE SWITCH button to "ON" Position (Fig. 3).
6. Pull the manual starter until a slight resistance is felt, then pull it toward you relatively sharply. Slowly turn the manual starter by hand, do not release it abruptly.
7. Open the choke (Fig. 4, "ON" position).
8. Wait 1-2 minutes and connect electrical appliances.

Fig. 1



Fig. 3

OFF ← Fig. 2 ON



OFF → Fig. 4 ON


IMPORTANT!


Useful tip: to ensure long-term operation of the generator engine, it is important to observe the following tips:

- Before connecting the load, allow the engine to run for 1-2 minutes to warm it up.
- When disconnecting the load after lengthy operation, do not turn off the generator. Allow the generator to run idle for 1-2 minutes so that it cools down.


ATTENTION – DANGER!


Do not connect two or more devices at a time. The start-up of many devices requires high power. Devices should be connected one at a time according to their power rating. Do not connect any power consumers within the first 2 minutes after the generator has been started.

DISCONNECT ALL DEVICES BEFORE STOPPING THE GENERATOR!

Do not stop the generator with the devices turned on. This may disable the generator or devices connected to it!

TO STOP THE ENGINE, PROCEED AS FOLLOWS:

1. Turn off all devices.
2. Allow the generator to run idle for approx. 1-2 minutes.
3. Switch the ENGINE SWITCH to the OFF position (Fig. 5).
4. Close the gas valve.
5. Unplug the devices.

Fig. 5



MAINTENANCE

8

This manual compliance! You can find a list of service center addresses on the website of exclusive importer:
www.konner-sohnen.com

TECHNICAL MAINTENANCE WORKS

Unit	Action	At each start	First month or 20 operating hours	Every 3 months or 50 operating hours	Every 6 months or 100 operating hours	Every year or 300 operating hours
Motor oil	Level check	✓				
	Replacement		✓	✓		
Air filter	Check /Cleaning	✓	✓	✓		
	Replacement				✓	
Spark plug	Cleaning		✓	✓		
	Replacement				✓	
Fuel tank	Level check	✓				
	Cleaning					✓
Fuel filter	Check (clean out)		✓	✓		

- If the generator often operates at high temperature or high load, the oil should be replaced every 25 operating hours.
- If the engine often runs in dusty or other harsh conditions, clean the air filter every 10 operating hours.
- If you missed the maintenance time, perform it as soon as possible to save the generator engine.

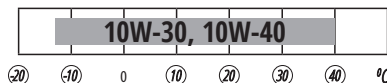
**IMPORTANT!**

The manufacturer shall not be liable for any damage caused by failure to perform maintenance work.

RECOMMENDED OILS

9

Use oils designed for four-stroke cycle vehicle engines SAE10W-30, SAE10W-40. Motor oils with other viscosity levels, may be used only if the average air temperature in your region does not exceed the limits of the temperature range, specified in the table.



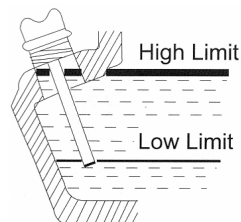
Upon oil level decrease it is necessary to add the required quantity in order to provide the correct generator operation. It is necessary to check the oil levels according to technical maintenance schedule. Further details can be found in the full version of the manual on our website.

TO DRAIN ENGINE OIL, PERFORM THE FOLLOWING ACTIONS:

1. Please drain the oil while the engine is warm. This provides a quick and complete oil drain.
2. Wear protective gloves to avoid getting oil on the skin.
3. Place a drain oil holding tank under the engine.
4. Turn the drain cap, located in the engine under the oil-depth gage cap, by means of spanner.
5. Wait till the oil drains.
6. Replace the drain cap and tighten it well.

TO REFILL OIL, PERFORM THE FOLLOWING ACTIONS:

1. Make sure that the generator is set on flat level surface.
2. Open the oil-depth gage cap on the engine
3. By means of a funnel, pour the advanced purification engine oil to the crankcase. The funnel is not included.



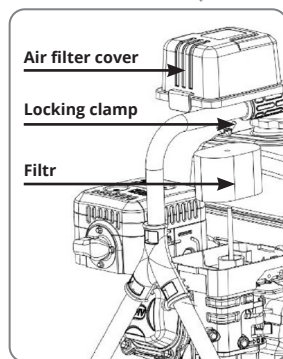
AIR FILTER TECHNICAL MAINTENANCE

10

Air filter cleaning is to be performed each 50 hours of the generator operation (every 10 hours in unusually dusty conditions).

CLEANING THE FILTER:

1. Open the clips on the upper cap of the air filter.
2. Remove the sponge filtering element.
3. Remove all dirt deposits inside the hollow case of the air filter.
4. Thoroughly wash the filtering element in warm soapy water.
5. Dry the sponge filter.
6. Dry filtering element is to be moistened by motor oil and excess oil is to be squeezed out.



SPARK PLUGS TECHNICAL MAINTENANCE

11

Spark plug has to be intact, without soot deposits and to have a correct gap.

SPARK PLUG VERIFICATION:

1. Remove the cap from the spark plug.
2. Remove the spark plug by means of a corresponding spanner.
3. Examine the spark plug. If it is shattered – it is necessary to replace it.
Recommended replacement spark plugs – F7TC.
4. Measure the gap. It has to be within range 0.7-0.8 mm.
5. In case of repeated use, the spark plug has to be cleaned by means of a metal brush.
After that – set the correct gap.

DAMPER AND FLAME ARRESTER MAINTENANCE

12

The engine and damper will get very hot after the generator has been started. Do not touch the engine or damper with any part of your body or clothing during inspection or repair until they have cooled down.

Remove the screws and then pull the protective cover towards you. Loosen the bolts and remove the cover, screen and flame arrester of the damper. Descale the screen and flame arrester of the damper with a wire brush. Inspect the screen and flame arrester of the damper. Replace them if they are damaged. Replace the flame arrester. Replace the screen and cover of the damper. Replace the cover and tighten the screws.

**IMPORTANT!**

Match the protrusion of the flame arrester to the hole in the pipe damper.

FUEL FILTER

13

**IMPORTANT!**

Never use gasoline while smoking or in the immediate vicinity of an open flame.

1. Remove the fuel tank cap and fuel filter.
 2. Clean the filter with gasoline.
 3. Wipe the filter and replace it.
 4. Replace the fuel tank cap.
- Make sure that the fuel tank cap is tight.

**IMPORTANT!**

The generator must be stored and transported with a closed vent at all times!

Storage room has to be dry and free from dust deposits. Storage room also has to be locked away from children and animals. It is recommended to store and use the generator at temperature of -20 °C to +40 °C. Avoid direct sunlight, rain on the generator. Information on long-term storage and transportation can be found in the full version of the manual.

GENERATOR DISPOSAL

15

To prevent environment damage generator should be separated from ordinary waste. Please recycle them in the safest way, passing it to special place for disposal.

Potential faults and troubleshooting methods, as well as average device capacities can be found in the full version of the manual.

WARRANTY SERVICE TERMS

16

The international manufacturer warranty is 1 year. The warranty period starts from the date of purchase. In cases when warranty period is longer than 1 year according to local legislation please contact your local dealer. The Seller which sells the product is responsible for granting the warranty. Please contact the Seller for warranty. Within the warranty period, if the product fails because of defects in the production process, it will be exchanged on the same product or repaired.

All faults caused by the manufacturer during the warranty period will be eliminated free of charge. Warranty repair is carried out only if you have a fully completed warranty card, the Buyer's signature of acceptance of the warranty terms, as well as a document supporting the purchase (cash receipt, sales slip or invoice). In the absence thereof, as well as in the event of errors or corrections not authenticated by the seller's seal or illegible inscriptions in the warranty card or tear-off coupon, no warranty repair is carried out, no objections to quality are accepted and the warranty card is withdrawn by the service center as invalid. The device is accepted for repair clean and full.



EC Declaration of Conformity

Nr. 224

The following products have been tested by us with the listed standards and found in compliance with the European Community Machinery Directive 2006/42/EC, Electromagnetic compatibility Directive (EMC) 2014/30/EC, Noise Directive 2000/14/EC.

Manufacturer: DIMAX INTERNATIONAL GmbH
Address: Flinger Broich 203 -FortunaPark- 40235 Duesseldorf, Germany
Product: Inverter generator "K&S BASIC"
Type / Model: KSB 31i

The statement is based on a single evaluation of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo. The manufacturer should ensure that all product in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

Applied EC Directives: 2006/42/EC Machinery Directive
2014/30/EC Electromagnetic compatibility Directive (EMC)
2000/14/EC Noise Directive(amended in 2005/88/EC)
(EU) 2016/1628 Non-Road mobile machinery emissions

Applied Standards: EN ISO 8528-13:2016
EN 55012:2007+A1:2009
EN ISO 3744:1995,
ISO 8528-10:1998

Gasoline engines KSB 210i, correspond to European Emission Standard Euro V(Stage V).
Technical service responsible for carrying out the test - CETOC Technical Service s.r.l.
Date of issue 25/12/2024

2000/14/EC_2005/88/EC Annex VI

For model KSB 31i Noise measured Lwa= 93 dB (A), guaranteed Lwa = 96 dB (A)



Issued Date:
Place of issue:
General director:

2025-03-15
Duesseldorf
Fomin P.

P. Fomin

DIMAX

International GmbH
Flinger Broich 203 40235 Duesseldorf
USt-ID DE296177274
koenner-soehnen.com

We DIMAX INTERNATIONAL GmbH hereby declare that specified above conforms covering European Parliament and Council Directives, 2006/42/EC of 17 May 2006 Machinery Directive, Electromagnetic compatibility Directive (EMC) 2014/30/EC of 26 February 2014, Noise Directive 2000/14/EC of 8 May 2000. The CE mark above can be used under the responsibility of manufacturer. After completion of an EC declaration of Conformity and compliance with all relevant EC directives.

CONTACTS

Deutschland:

Hergestellt unter Lizenz und Kontrolle der
DIMAX International GmbH.

Importeur und Vertreter in Deutschland:
DIMAX International GmbH Flinger Broich 203, 40235
Düsseldorf, Deutschland. Produziert in VRC.

innovationtrade8@gmail.com

www.konner-sohnen.com/de

European Union:

Manufactured under license and control of DIMAX
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Importer and representative in Netherlands DIMAX
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02232, м. Ки в,   кра на. Змонтовано в КНР

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