

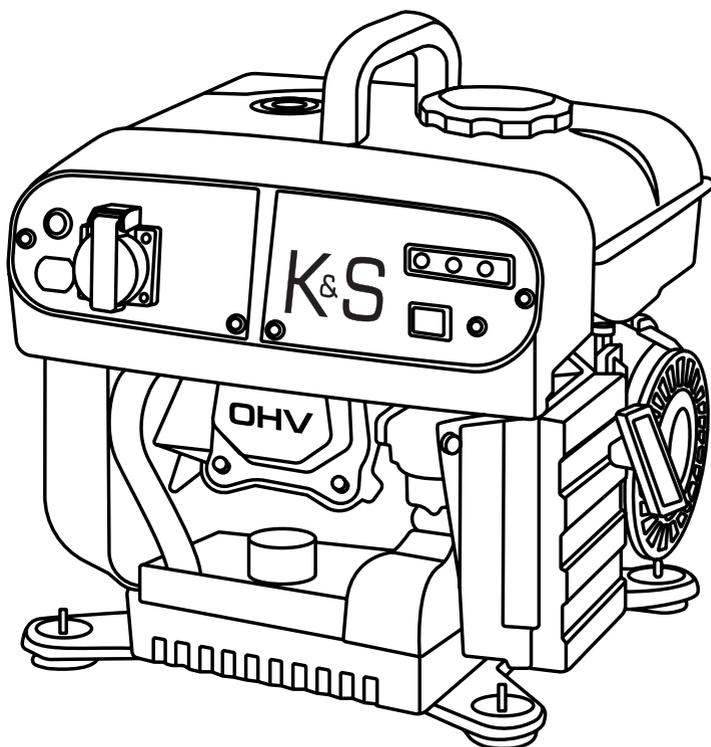


# K&S BASIC

SIMPLE ENERGY

## Inverter Generator

KS 1200i





Thank you for your purchase of **TM K&S Basic** products. This manual contains a brief description of safety, use and debugging. More information can be found on the official manufacturer's website in the support section: [ks-power.de/betriebsanleitungen](http://ks-power.de/betriebsanleitungen).

You can also go to the support section and download the full version of the manual by scanning the QR code, or on the website of the official importer of **K&S Basic** products: [www.ks-power.de/en](http://www.ks-power.de/en).



*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!**



Manufacturer reserves the right to make alterations into the generators, which may not be reflected in this manual. Pictures and photos of the product may vary from its actual appearance. At the end of this manual, You may find contact information which you are free to use in case of any issues occurrence.

All data, specified in this operation manual is the most up to date for the moment of its publishing. The current list of service centers you can find at the website of official importer: [www.ks-power.de/en](http://www.ks-power.de/en).



**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 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). Keep unauthorized persons, children, and animals away from work area. Wear safety shoes and gloves.

## ELECTRICAL SAFETY

1.1



**ATTENTION – DANGER!**



**The device generates electricity. Follow safety precautions to avoid electric shock.**

The generator produces electricity that may lead to an electric shock while neglecting compliance regulations. All connecting the generator to the network must be made by certified electrician in accordance with all electrical rules and regulations. Connect the generator to the protective ground before operation. Wires with damaged or spoiled insulation should be replaced. You should also replace worn, damaged or rusty contacts.



**IMPORTANT!**



**Using device for other purposes deprives the right for free warranty.**



**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.**

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!**

*General view of inverter generators, description of control panels, safety symbols and description of inscriptions can be found in the full electronic version.*

### ECON FUNCTION

1. Start the engine.
2. Set the ECON switch to “ON”.
3. Plug the device into an AC outlet.
4. Make sure the AC indicator light is on.
5. Turn on the electrical device.



**IMPORTANT!**



**The ECON switch must be set to “OFF” to increase engine speed to nominal. When connecting multiple power consumers to the generator, be sure to first connect the one with the highest starting current, and the device with the lowest starting current should be connected last.**

### “ON” MODE

When the ECON switch is in the “ON” position, the control unit monitors the engine speed, reducing it commensurate with the connected load. If the engine speed is not enough to generate electricity to provide the load, the control unit will automatically increase the engine speed.

As a result, fuel consumption is optimized and noise levels are reduced.

### “OFF” MODE

The ECON switch must be set back to “OFF” when using electrical devices requiring a high starting current, such as a compressor or submersible pump.



**IMPORTANT!**



**The ECON switch must be set back to “OFF” when using electrical devices requiring a high starting current, such as a compressor or submersible pump.**

<b>Model</b>	<b>KS 1200i</b>
<b>Voltage, V</b>	230
<b>Maximum power, kW</b>	1.2
<b>Nominal power, kW</b>	1.0
<b>Frequency, Hz</b>	50
<b>Current, A (max.)</b>	5.22
<b>Outlets</b>	1x16A
<b>Engine start</b>	Manual
<b>Fuel tank volume, l</b>	3.5
<b>Operating time at 50% load, h</b>	5.5
<b>Noise level Lpa (7m)/Lwa, dB</b>	67/92
<b>Output 12V, A</b>	5.0
<b>Engine model</b>	KS 110i
<b>Engine type</b>	Gasoline powered one-cylinder, four-stroke
<b>Engine power, hp</b>	2.0
<b>Crankcase volume, l</b>	0.4
<b>Engine volume, cm<sup>3</sup></b>	87
<b>Power output controller</b>	AVR
<b>Power factor, cos φ</b>	1
<b>Net dimensions (L*W*H), mm</b>	310*310*380
<b>Gross dimensions (L*W*H), mm</b>	335*330*415
<b>Net weight, kg</b>	13
<b>Protection class</b>	IP23M
<b>Nominal voltage tolerance – max. 5%</b>	

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 in order to preserve the long service life of the generator, continuous loads of more than 80% of the nominal power are not recommended.

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!**



**To avoid electric shock due to poor-quality electrical appliances or improper use of electricity, the generator must be earthed using a high-quality insulated conductor.**



**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.**

### ENGINE SWITCH

To start the engine, turn the engine switch to the "ON" position. To turn off the engine, turn the engine switch to the "OFF" position.



**IMPORTANT!**



**Useful tip: If the engine stalls or does not start, turn the engine switch to the "ON" position, and then pull the manual starter. If the oil level indicator flickers for several seconds, add oil and restart the engine.**

### OIL LEVEL INDICATOR

When the oil level falls below the level required for operation, the oil level indicator lights up, and then the engine stops automatically. The engine will not start until oil is added.

### AC INDICATOR

When the generator is running and producing electricity, the AC indicator light is on.

### OVERLOAD INDICATOR

The overload indicator lights up when the connected generator is overloaded, the inverter control unit overheats or the AC output voltage rises.

If the overload indicator goes on, the engine will continue to operate, but the generator will no longer produce electricity. In this case, you must perform the following steps:

1. Turn off all connected electrical appliances and stop the engine.
2. Reduce the total power of the connected devices until the nominal power of the generator is reached.
3. Check if the vent grid is clogged. Remove excess dirt or debris, if any.
4. After checking, start the engine.



**IMPORTANT!**



**The overload indicator may light up within several seconds after start-up or when connecting electrical devices requiring a high starting current, such as a compressor or voltage indicator. However, this is not a malfunction.**

## DC FUSE

The DC protector automatically switches to “OFF” when the current of the operating electrical device is higher than the rated current. To use this equipment again, turn on the DC fuse again by pressing the “ON” button.



**IMPORTANT!**



**If the DC fuse turns off, reduce the load of the connected electrical device. If the DC protector turns off again, stop operation and contact your nearest Könnér & Söhnen service center.**

## FUEL TANK CAP

Remove the fuel tank cap by turning it counterclockwise.

## FUEL TANK CAP AIR VENT

The fuel tank cap is equipped with an air choke control knob for venting and stopping the fuel supply. The air choke control knob must be returned to the “ON” position. This will allow fuel to enter the carburetor and engine to start. When the generator is not in use, turn the air choke control knob to the “OFF” position to stop the fuel supply.

## GROUND TERMINAL

The ground terminal forms a ground line to prevent electric shock. If the electrical appliance is grounded, the generator must also be grounded.

## CHECK BEFORE GETTING STARTED

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### 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.
4. For closed models, open the air intake valve on the fuel tank cap.

**Recommended fuel:** unleaded gasoline.

**Fuel tank volume:** see specifications table.



**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.**

### CHECKING THE OIL LEVEL

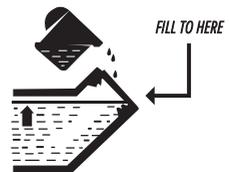
The generator is transported free of motor oil. Do not start the engine until it is filled with sufficient amount of motor oil.

1. Unscrew the oil dipstick and wipe it out with a clean cloth.
2. Insert the dipstick without screwing it in.
3. Check the oil level by a mark on the oil dipstick.
4. Add oil if its level is below the mark on the oil dipstick.
5. Screw on the dipstick.

**Recommended motor oil:** SAE 10W-30, SAE 10W-40.

**Recommended motor oil grade:** API Service SG type or higher.

**Motor oil quantity:** see specifications table.



**Before starting the engine**, make sure that the power rating of power consumers matches that of the 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 15 minutes in the range from nominal to maximum power.**

## COMMISSIONING

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 commissioning, 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.



**IMPORTANT!**



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

## ENGINE START

Do not connect any power consumers to the generator before you start the engine. Turn the ECON switch to the “OFF” position. Turn the air choke control knob to the “CLOSE” position. Turn the fuel valve handle to the “ON” position (OPEN). Set the engine switch to “ON”. 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. When starting the generator, hold the generator by the carrying handle to prevent the generator from falling. Slowly turn the air choke control knob to the “OPEN” position and then warm up the engine for 1-2 minutes. If the engine does not start, check the oil level. Before turning on the connected device, check that the ECON switch is in the “OFF” position.



**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 if it has any devices connected to it. This may disable the generator or devices connected to it!

## TO STOP THE ENGINE, PROCEED AS FOLLOWS:

1. Disconnect all devices connected to the generator, then disable the ECON mode.
2. Allow the generator to operate at idle for 3 minutes for the alternator to cool down.
3. Set the engine switch to OFF.
4. Turn the fuel valve to the "OFF" position.

*Detailed description of operation in AC mode can be found in the full electronic version of the manual.*

## MAINTENANCE

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This manual complies! You can find a list of service center addresses on the website of exclusive importer: [www.ks-power.de/en](http://www.ks-power.de/en).

### 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				✓	
Spark plug	Cleaning		✓	✓		
	Replacement				✓	
Fuel tank	Level check	✓				
	Cleaning					✓
Fuel filter	Replacement				✓	

- 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.

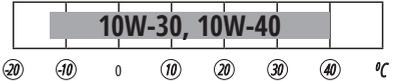


**IMPORTANT!**



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

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. The detailed description of oil filling and draining can be found in the full version of the manual.

## AIR FILTER TECHNICAL MAINTENANCE

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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 machine oil and excess oil is to be squeezed out.

## SPARK PLUGS TECHNICAL MAINTENANCE

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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

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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. Descal 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.**

**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.

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.

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

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

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.

The warranty card should be kept throughout the warranty period. In case of warranty card loss, a second one will not be provided. The customer must provide the warranty card and buyer`s check during request for repair or exchange. Otherwise, the warranty service will not be provided. The warranty card, attached to the product during sale, should be correctly and fully completed by the retailer and customer, signed and stamped. In other cases, warranty is not considered as valid.

Provide clean product to the service center. Parts, that must be replaced, are the property of the service center.



# EC Declaration of Conformity

Nr. 077

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: Hauptstr. 134, 51143 Cologne, Germany

Product: Inverter generator "K&S BASIC"

Type / Model: KS 1200i

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  
(EU) 2016/1628 Non-Road mobile machinery emissions

Applied Standards: EN ISO 8528-13:2016  
EN12601:2010  
EN 55012:2007/+A1:2009  
EN 61000-6-1:2007

Gasoline engines KS 110i correspond to European Emission Standard Euro V. This is confirmed by EU TYPE-APPROVAL CERTIFICATE issued by department of transport of Madrid, Spain.  
Technical service responsible for carrying out the test -IDIADA.  
Date of issue 11/03/2019

### 2000/14/EC\_2005/88/EC Annex VI

For Model KS 1200i Noise measured  $L_{WA} = 93$  dB (A), guaranteed  $L_{WA} = 95$  dB (A)



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Issued Date: 2020-04-20  
Place of issue: Warsaw city  
Technical expert: Homenco A.



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

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