

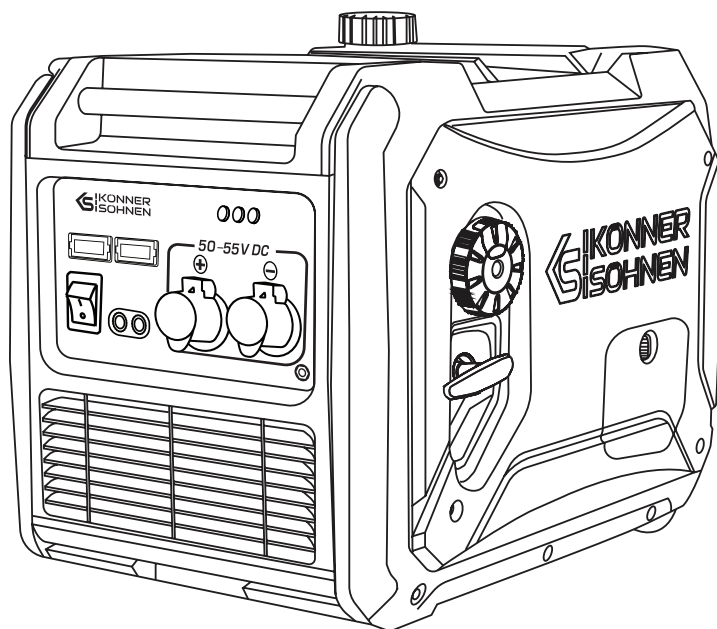
**Please, read this manual
carefully before use!**

Owner's Manual



Direct current generator

KS 48VS-DC
KS 48VGS-DC





Thank you for choosing **Könnér & Söhnen®** 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/pages/instructions

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 **Könnér & Söhnen®** at www.konner-sohnen.com



Please, read this manual carefully before use!

The manufacturer of **Könnér & Söhnen®** 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 user manual is up-to-date as of the time of 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 INFORMATION

1

- Generators must not be operated unprotected in rain, snow, or on wet ground, as this can lead to severe electric shocks or short circuits. Prolonged direct sunlight should be avoided. Generators must not be operated near flammable or easily ignitable materials.
- The generator must be operated outdoors, with a safety distance of at least 6 m from all doors, windows, and ventilation openings of the building. A roof or running cover is recommended to protect the generator from rain and splashing water, keeping it dry while ensuring sufficient airflow for cooling and exhaust.
- A clearance of at least 50 cm on each side of the generator, as well as from above, must be maintained to ensure adequate cooling and ventilation. The distance to the control panel must be at least 1 m.
- The generator must be positioned so that exhaust fumes do not enter the air intake.
- Operation in a room is not intended.
- Safety shoes, safety gloves, and hearing protection should be worn as personal protective equipment if necessary.

ELECTRICAL SAFETY

1.1



ATTENTION – DANGER!



The DC generator is connected to a battery capable of delivering very high currents in the event of a short circuit. The cable (positive terminal) running from the connection point to the generator must be protected using the supplied fuse.

The generator produces a voltage of less than 60 V DC. This voltage falls within the safety extra-low voltage (SELV/PELV) range.

Under normal conditions, these levels pose no risk of a life-threatening electric shock upon contact. Therefore, in accordance with current electrotechnical standards (such as DIN VDE 0100-410), no additional measures for protection against direct contact are mandatory.



IMPORTANT!



The two active conductors (positive and negative terminals) of the DC output are galvanically isolated from the housing or generator frame. The generator's grounding screw is to be used solely for equipotential bonding, if required.

SAFETY MEASURES FOR OPERATING THE DC GENERATOR

1.2



IMPORTANT!



The DC generator must only be connected to a battery whose operating voltage range encompasses the generator's permissible voltage range. Connection to batteries with a voltage exceeding 60 V DC may result in damage to the generator!

Ensure the presence of integrated protection mechanisms, such as a battery management system (BMS) for lithium batteries and a balancer if multiple batteries are connected in series.



ATTENTION – DANGER!



It is strictly prohibited to connect the generator to a battery or to the busbar of a battery storage system without circuit protection (the supplied fuse).

When using the DC generator to charge a PV battery storage system, we recommend installing a 2-pole DC service breaker (rated current of at least 63 A) to allow for the all-pole disconnection of the generator's connection terminal for maintenance purposes. This ensures that the DC generator's connection terminal is completely de-energized and safe to touch during maintenance or cleaning work.

It is essential to ensure that a dedicated DC breaker (designed for direct current) is used. Standard AC breakers (designed for alternating current) cannot extinguish the arc generated when disconnecting direct current and pose a significant fire hazard. Cables from the DC busbar should be connected to the input of the DC breaker.

SAFETY MEASURES FOR OPERATING THE GAS/PETROL GENERATOR

1.3



ATTENTION – DANGER!



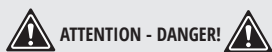
For dual fuel models, only propane-butane mixture for cars (LPG) or propane can be used as gas! It is forbidden to use any other gas!

Never place the generator in living areas, garages, basements, or sheds.

Maintain a distance of at least 1.5 to 3 meters from windows, doors, ventilation openings, and combustible materials.

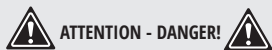
When operating the generator in rain or snow, use only an open-sided shelter or a special protective tent to prevent the generator from getting wet.

Ensure all cables are securely connected before starting the unit. In the event of a gas leak, shut off the gas supply and turn off the generator. The gas supply must remain shut off while the generator is not in use. Automatic operation of the generator is only possible using petrol.



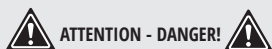
ATTENTION - DANGER!

Do not allow sparks near gas powered generator during its work



ATTENTION - DANGER!

The gas cylinder valve must not be closed when the generator is not running. The generator must not be operated on gas in basements.



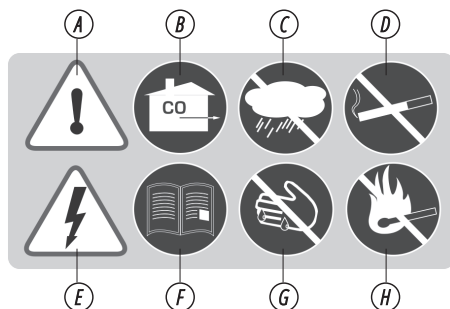
ATTENTION - DANGER!

Operating with liquefied petroleum gas (LPG) in basements is prohibited due to the inherent dangers of its properties. LPG is heavier than air, meaning that if a leak occurs, it will sink and accumulate in low-lying areas like basements, potentially creating a dangerous gas pocket. This pocket of gas can easily ignite if it comes into contact with an ignition source, leading to a fire or explosion.

SAFETY SYMBOLS DECRYPTION

2

SYMBOLS DESCRIPTION WHEN WORKING WITH GENERATOR

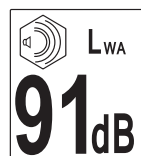


- A.** Be careful when using the device! Follow safety rules listed in manual.
- B.** Use the generator only in areas that are well ventilated, or on open areas. The exhaust gases contain CO, which are dangerous to life.
- C.** Do not use or store the device in high humidity.
- D.** Do not smoke when using the generator!
- E.** The device generates electricity. Follow safety precautions to avoid electric shock.

- F.** Carefully read the manual before using the device.
- G.** Do not touch the generator with wet or dirty hands.
- H.** Follow fire safety rules, do not use open flames near the generator.
- I.** Please don't touch! The muffler heats up when running the generator.



Use only unleaded gasoline with an octane rating of 90-95 containing no more than 10% ethanol.



Indicates the noise level. For different models this indicator is different. All characteristics are given in the "Specifications".



Information on the required level of oil in the crankcase

MAINTAIN AIR FILTER!

⚠ Clean up in cleansing solvent (not flammable) and dry up once every 50 hours (every 10 hours in usually dusty conditions) and then immerse in clean engine oil until saturated, squeeze out excessive oil.

RECOMMENDED
MAINTENANCE
SCHEDULE

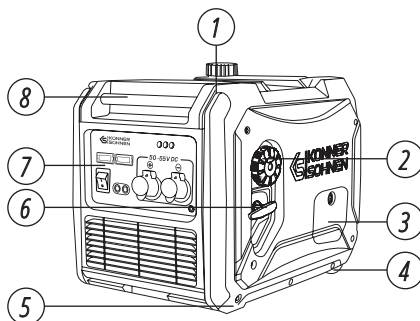


Air filter cleaning is to be performed each 50 hours of the generator operation (every 10 hours in unusually dusty conditions).

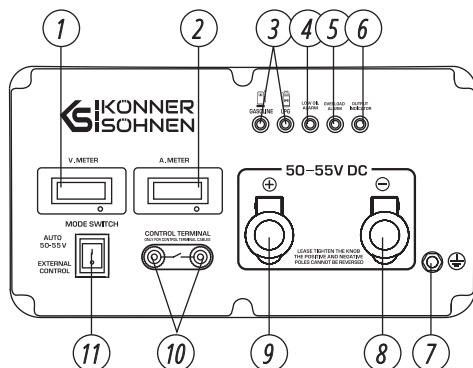
MAIN OVERVIEW

3

1. Fuel tank cap
2. Engine switch of the generator (multifunction engine switch for model KS 48VS-DC)
3. Maintenance cover
4. Transport wheels
5. Antivibration supports
6. Manual starter
7. Control panel
8. Carrying handles

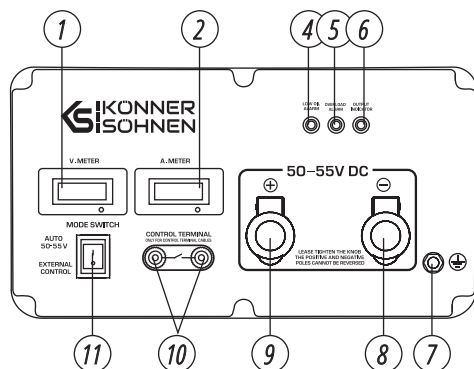


CONTROL PANEL FOR MODEL KS 48VGS-DC



1. Voltmeter
2. Amperemeter
3. Fuel type indicators
4. Low oil level indicator
5. Overload indicator
6. Operating indicator
7. PE screw
8. The terminal for connecting the negative wire of the battery
9. The terminal for connecting the positive wire of the battery
10. Terminal for external potential-free control contacts
11. Mode switch of the generator

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COMPONENTS OF SET

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1. Generator
2. Packaging
3. Operating instructions
4. Key candle
5. Screw-driver PH2 6,0 mm
6. Case for accessories
7. Oil filling funnel
8. Spare fuse
9. Bridge (cable) for control contacts
10. Power cable 48V 2 pcs



The LPG/gasoline version of the generator is supplied with a 1.5-meter gas hose, a pressure regulator for connection to a gas cylinder. Connecting the generator to an existing low-pressure gas network (LPG only) is not possible with the supplied hose. The pressure regulator requires an input pressure of at least 1.7 bar and has a gas cylinder connection according to DIN 477 with a W 21.80 x 1/14 inch left-hand thread.

Model	KS 48VS-DC	KS 48VGS-DC
Voltage	47-52V, 48-54V, 50-55V (depending on version)	47-52V, 48-54V, 50-55V (depending on version)
Nominal power	3,3 kW	3,3 kW
Current	60 A	60 A
Start	AUTO/EXTERNAL CONTROL	AUTO/EXTERNAL CONTROL (gasoline only)
Fuel tank volume	13 l	13 l
Fuel consumption in AUTO mode*	0.6 L/kWh	0.6 L/kWh (gasoline)
LED display	output voltage, charging current	output voltage, charging current
Noise level Lpa (7m)/Lwa	71/96 dB	71/96 dB
Engine model	KS 235i	KS 235i-H
Engine volume	223 cm ³	223 cm ³
Engine type	gasoline, 4 stroke cycle engine	LPG/gasoline, 4 stroke cycle engine
Engine power	7,5 hp	7,5 hp
Crankcase volume	0,6 l	0,6 l
Dimensions (L×W×H)	745×500×575 mm	745×500×575 mm
Net weight	38,5 kg	39 kg
Protection class	IP23M	IP23M

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

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.



IMPORTANT!



Ensure that the control panel, protective grid, and underside of the generator are well ventilated and free from solid debris, dirt, and water. Insufficient air circulation can cause excessive heat buildup and damage the generator.

GENERATOR OPERATION

6

Before starting the generator, connect the battery pack to be charged. The charging cable that connects the generator to the battery pack must be secured with an 80-100 A fuse. The generator voltmeter shows the voltage of the connected battery, and the green LED (power indicator) starts flashing. The generator has no integrated battery and is activated by the battery pack to be charged.

A multi-function rotary selector combines a fuel valve, a generator switch and a start button.

The generator is specially designed for charging batteries and acts as a battery charger with a charging characteristic IU0. The battery is first charged with a constant current of 60-63 A until the generator output voltage reaches 52V, 54V, or 55V depending on the generator version. After that, the generator runs with a DC output voltage. If the initial charging current is below 60 A, the output voltage will be 52V, 54V, or 55V depending on the generator version straight away.

FUEL TYPE INDICATORS

When generator is running on gasoline, gasoline indicator is on. When generator is running on LPG, LPG indicator is on.

POWER LED (GREEN)

The LED flashes (current consumption below 20 A) or is continuously lit (current consumption above 20 A) as long as the generator output voltage is applied to the DC output terminals.

OVERLOAD LED (RED)

The overload LED lights up when the current consumption reaches the maximum or in case of a malfunction. The red LED is continuously lit when the battery is charging at maximum amperage.

LOW OIL LEVEL LED (YELLOW)

When the oil level is below the lower acceptable limit, the low oil level LED lights up, and the engine stops. Insufficient oil level causes the ignition to turn off.



IMPORTANT!



The overload indicator may light up within several seconds after start-up. However, this is not a malfunction.

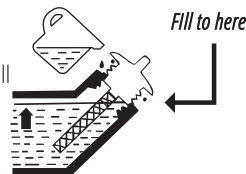
BEFORE FIRST START

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CHECKING THE OIL LEVEL

The generator is shipped without engine oil. Always fill up the engine with engine oil before you start it.

1. Unscrew and remove the oil dipstick and wipe it with a clean, lint-free cloth.
2. Insert the dipstick without screwing it in.
3. Pull the dipstick out again and check the oil level by the marks on it.
4. Add oil if the level is below the "HIGH" mark (it is recommended to fill the oil to the maximum level as shown in fig.).
5. Finally, screw the dipstick back in.



Recommended engine oil: SAE 5W-30, SAE 10W-30, SAE 5W-40, SAE 10W-40.

Engine oil capacity: 0.6 l.

CHECKING THE FUEL LEVEL

The fuel tank has a fuel level gauge featuring a float, which shows only an approximate fuel level. You can only determine the exact fuel level by removing the tank cap. **Use only unleaded gasoline with an octane rating of 90-95 and an ethanol content of no more than 10%!**

Fuel tank capacity: approx. 12 L.

The LPG/gasoline version (KS 48VGS-DC) can also operate on propane, butane, and their mixtures (LPG group gases). Due to its high boiling point, butane (a camping gas) should only be used in warm weather.



IMPORTANT!



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



IMPORTANT!



Using of gasoline with a higher octane rating. Using leaded gasoline can cause serious damage to the inside of the engine.


WARNING!

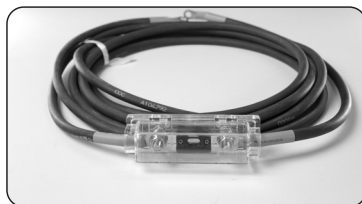

All generator wiring must be carried out by a certified electrician in accordance with all electrotechnical standards and regulations. The generator's wiring diagram must comply with installation guidelines and applicable legal requirements.

1. Fill with engine oil. The recommended oil quantity for each model is specified in the technical data table.
2. Check the oil level using the dipstick without screwing it in. The oil level should be near the «Max» mark on the dipstick. Visually, the engine oil should reach the lower edge of the oil filler opening while the generator is positioned horizontally.
3. Fill with gasoline if you intend to operate the generator using gasoline.
4. To connect the battery, use the supplied cables—or similar cables with a cross-section of at least 16 mm² (copper)—and an inline fuse (80–100 A).

If the generator is to be used to charge a 48V battery storage system from a PV system, we recommend installing a 2-pole DC breaker and a connection terminal with screw terminals; this allows the generator to be quickly disconnected or connected as needed. The inline fuse serves as cable protection and must be located close to the connection terminal.

The 2-pole DC breaker simultaneously disconnects the positive (+) and negative (-) lines from the 48V DC busbar, immediately de-energizing both the connection terminal and the generator completely.

5. Connect the connection cables to the generator's 48V DC terminals first, and only then to the battery being supplied. Strict attention must be paid to polarity. The "+" (red mark) must be connected to the positive terminal, and the "-" (black mark) must be connected to the negative terminal of the battery.



6. Check the battery voltage on the generator's voltmeter. The voltmeter lights up as soon as the battery is correctly connected and displays the voltage regardless of whether the generator is running or not. The voltmeter does not light up if the battery is deeply discharged or if the cables (positive and negative terminals) are connected incorrectly.


WARNING!


It is strongly advised against charging a deeply discharged battery at a high current. Use other devices that provide a lower current for this purpose.

A deeply discharged battery must never be charged immediately at a high current, as this can cause irreparable damage, excessive heat generation, or in the worst-case scenario fire or explosion.

The reason for this is the battery's significantly increased internal resistance when deeply discharged. If a high current flows immediately, the energy is converted directly into dangerous heat.

The voltmeter and ammeter are equipped with an hour meter.

Press the button once to view the current runtime.

Press the button twice to view the total runtime.



The hour meter on the voltmeter starts as soon as the battery is connected.

The voltmeter displays the runtime since the last battery connection as well as the total runtime.

The hour meter on the ammeter starts as soon as the generator starts.

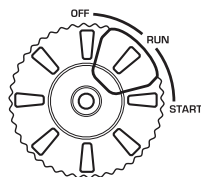
The ammeter activates only when the generator starts and remains active while the generator is running.

The ammeter displays the engine's current and total runtime.

You can check the engine's operating hours on the ammeter to ensure the generator is serviced on time.

STARTING THE GENERATOR ON GASOLINE

1. Check the oil level using the dipstick without screwing it in. The low-oil protection system activates if the engine oil level is too low, preventing the generator from starting.
2. Check the fuel level. Drain any deposits from the fuel system if the generator has been out of service for an extended period. Observe the fuel's shelf life. Replace old petrol with fresh fuel if necessary.
3. Move the multifunction switch to the RUN position. This opens the fuel valve and enables the ignition.
4. Select the desired operating mode: AUTO or EXTERNAL CONTROL.



In AUTO mode, the generator starts automatically once the battery voltage drops below the lower threshold (47, 48, or 50 V, depending on the generator version).

In EXTERNAL CONTROL mode, the generator starts as soon as the CONTROL TERMINAL contacts are closed.

5. Press the START button for 1–2 seconds if you wish to start the generator in AUTO mode before the battery voltage drops below the lower threshold. The starting process begins. The ammeter lights up.

SWITCHING THE GENERATOR TO LPG (APPLIES ONLY TO KS 48VGS-DC)

Models with an LPG RESET button on the control panel:

1. Connect the gas cylinder to the generator's LPG connection using the gas hose.
2. Open the gas cylinder valve and ensure there are no gas leaks.
3. Press the LPG RESET button on the control panel to switch the solenoid valves to LPG and block the gasoline supply to the carburetor.

Models with mechanical switching to LPG (without an LPG RESET button on the control panel):

1. Connect the gas cylinder to the generator's LPG connection using the gas hose.
2. Open the gas cylinder valve and ensure there are no gas leaks.

Switching to LPG occurs automatically as soon as gas pressure is present at the generator's LPG connection. If the gas pressure drops below a certain level, the system automatically switches to gasoline operation.

WHICH GASES CAN THE GENERATOR BE OPERATED WITH?

LPG refers to short-chain hydrocarbons such as propane and butane, as well as mixtures thereof.

As fuel for combustion engines, an LPG mixture of propane and butane with varying ratios in winter and summer is generally used. Such a mixture, appropriate for the current season, is sold at gas stations.

Gas cylinders often contain only propane or butane, not mixtures.

Operation with pure propane or butane is also possible; however, butane, due to its higher boiling point, should only be used at higher ambient temperatures.

The LPG must vaporize in the gas cylinder before being transferred to the pressure regulator.

Liquefied petroleum gas (LPG) in a cylinder requires heat to vaporize and become gaseous. With higher gas consumption, the cylinder can cool down to such an extent that not enough LPG can vaporize, causing the generator to stall.

Therefore, it is important to use larger gas cylinders with more powerful generators, as these allow for a higher gas consumption rate. We recommend using cylinder warmers when drawing gas at higher rates. These can compensate for the energy loss and allow the generator to operate for longer periods at higher power outputs.



IMPORTANT!



Operation with other gases such as natural gas, biogas, etc., is not permitted. Using gases other than LPG can damage the engine.

RUNNING THE GENERATOR IN AUTOMATIC MODE

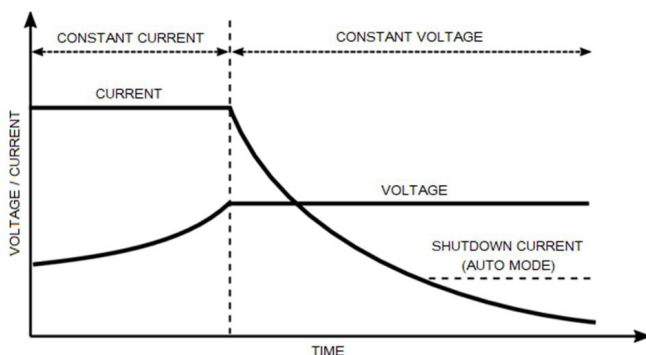
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In AUTO mode, the generator monitors the battery voltage and is activated automatically when the battery voltage drops to lower voltage threshold (47V, 48V, or 50V depending on the generator version). The response time is approx. 5 seconds.

The generator charges the battery with a current up to 60-63 A and shuts down as soon as the battery voltage reaches the upper voltage threshold (53V, 54V, or 55V depending on the generator version) and the charging current drops below 20 A. The response time is approx. 30 seconds.

The generator can be started manually by pressing the START button at any time, regardless of the battery voltage, but it will shut down within 30 seconds after the current consumption drops below 20 A.

The green LED (power indicator) is continuously lit when the current consumption exceeds 20 A and flashes when the current consumption drops below 20 A.



Where the power consumption should never drop below 20 A (48 V busbar) for technical reasons, EXTERNAL CONTROL mode should be used so that the generator does not run continuously.



NOTE



After 5 unsuccessful starting attempts (for example, there is no gasoline, or insufficient engine oil level), the generator goes into error mode. To unlock, you need to update the switch to the OFF position, refuel, and follow the instructions to switch to the desired mode.

EXTERNAL CONTROL MODE

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The EXTERNAL CONTROL mode is enabled by closing the CONTROL TERMINAL contacts and disabled by opening them. This mode enables optimal generator integration into various power supply systems through external control of devices using “dry” contacts, thus considerably expanding its range of applications. With a jumper fitted between the CONTROL TERMINAL contacts, the generator will kick in as soon as the multi-function rotary selector is set to “ON” and will shut down as soon as it is set to “OFF”. This application is advisable where the generator needs to be turned on and off manually, regardless of the connected battery voltage.

Multiple devices are equipped with potential-free “dry” contacts (inverters, uninterruptible power supplies, BMS batteries, battery voltage monitors, time relays, etc.), enabling various generator applications.



IMPORTANT!



EXTERNAL CONTROL mode is recommended for users with good experience with equipment.



IMPORTANT!



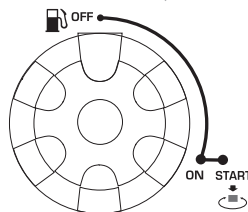
It is STRICTLY FORBIDDEN TO CONNECT to DRY contact (CONTROL TERMINAL) WIRES UNDER VOLTAGE. It may cause the generator to fail.

SHUTTING DOWN THE GENERATOR

11

TO STOP THE ENGINE, PROCEED AS FOLLOWS:

1. To stop the generator in any mode move the switch wheel to the OFF position.



MAINTENANCE

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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 or before each start-up.
- 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

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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.

SAE Viscosity Class	Operating temperature range
10W-30	from -25 °C to +30 °C
10W-40	from -25 °C to +40 °C (primary recommendation)

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.

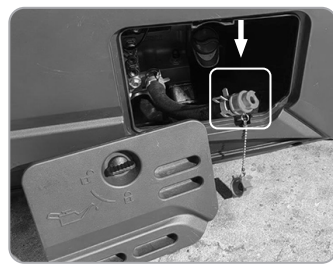
TO DRAIN ENGINE OIL, PERFORM THE FOLLOWING ACTIONS

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. Remove the cover of generator (fig. 1).
4. Place a drain oil holding tank under the engine.
5. Turn the drain cap, located in the engine under the oil dipstick cap (fig. 2).
6. Wait till the oil drains.
7. Replace the drain cap and tighten it well.
8. Close the maintenance cover (fig. 1).

Fig. 1



Fig. 2



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 or before each start-up).

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 warmsoapy 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

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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.
Spark plug installed: Torch F7RTC or similar. Alternatives: Champion RN9YC, N9YC, NGK BPR6ES, BP6ES, BPR7ES, BP7ES, Bosch WR7DC, W7DC.
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. 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

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IMPORTANT!

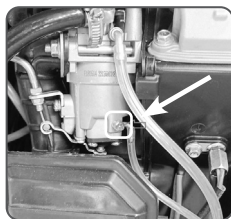


Never use gasoline while smoking or in the immediate vicinity of an open flame.

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

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To drain gasoline from the carburetor, turn off the fuel valve and wait until the generator has cooled down sufficiently. Place a drip pan under the carburetor and loosen the drain screw on the carburetor (see fig.). Make sure that no fuel leaks onto the generator. Tighten up the screw again.

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 $+40^{\circ}\text{C}$. 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

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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.

TROUBLESHOOTING

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Typical failures	Possible reason	Solution
Engine will not start	Rotary selector switch is in the "OFF" position	Set the rotary selector to "ON"
	No fuel in tank	Fill the tank with unleaded automobile gasoline with an octane rating of 90-95
	Fuel is old and has lost its properties	Change fuel
	Soiled carburetor	Clean the carburetor and drain the sludge
	Insufficient engine oil level	Top up engine oil to required level
	Spark plug defective	Replace the spark plug
Decreased engine power/ troubled engine start	Soiled carburetor	Clean the carburetor and drain the sludge
	Soiled air filter	Clean the air filter or replace it
	Spark plug defective	Replace the spark plug
	Incorrect spark plug electrode spacing	Set correct electrode spacing
Engine overheated	Cooling fins are dirty	Clean the cooling fins
	Air filter is dirty	Clean the air filter
Generator shuts off and error indicator is on	Potential battery problem (it must be charged)	Check battery parameters and remedy problems

The international manufacturer warranty is 2 years. The warranty period starts from the date of purchase. 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.

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



EC Declaration of Conformity

Nr. 229

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, 40235 Duesseldorf, Germany
Product: Direct current generator "Könnner & Söhnen"
Type / Model: KS 24VGS-DC, KS 24VS-DC, KS 24VM-DC,
KS 48VGS-DC, KS 48VS-DC

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/EU 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 ISO8528-13:2016
EN 55012:2007+ A1:2009
EN ISO 8528-10:202

Gasoline engines KS 100i, KS 240i correspond to European Emission Standard Stage V.
This is confirmed by EU TYPE - APPROVAL CERTIFICATE issued by department of transport of Luxembourg.
Technical service responsible for carrying out the test - TÜV Rheinland Luxembourg GmbH.
Date of issue 21/04/2024

2000/14/EC_2005/88/EC Annex VI

For models KS 24VGS-DC, KS 24VS-DC Noise measured Lwa= 90 dB (A), guaranteed Lwa= 93 dB (A).

For model KS 24VM-DC Noise measured Lwa= 91 dB (A), guaranteed Lwa= 93 dB (A).

For models KS 48VGS-DC, KS 48VS-DC Noise measured Lwa= 92 dB (A), guaranteed Lwa= 96 dB (A).



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Director: Fomin P.

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

P. Fomin

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.
amazon@dimaxgroup.com
www.konner-sohnen.com

The United States:

KS Energy Solutions, Inc. Balcones Drive STE 100 Austin, TX 78731, USA
Authorized Warranty Service
support.us@dimaxgroup.com
www.konner-sohnen.us

The United Kingdom:

Innovation Trade Ltd., 5th Floor, 167-169 Great Portland Street,
London, W1W 5PF, sales.uk@dimaxgroup.com

Technical support

support.uk@dimaxgroup.de
www.konner-sohnen.uk

European Union:

Manufactured under license and control of DIMAX International GmbH, Flinger Broich 203, 40235 Duesseldorf, Germany.
Importer and representative in Netherlands DIMAX International Poland Ltd, Południowa 8 st, 05-830 Stara Wieś, Poland. Assembled in PRC.
amazon@dimaxgroup.com
www.konner-sohnen.com

France:

Fabriqu  sous licence et contr le de DIMAX International GmbH,
Flinger Broich 203, 40235 D sseldorf, Allemagne.
Importateur et repr sentant en France et en Belgique
DIMAX International Poland Ltd, Po udniowa 8 st,
05-830 Stara Wie , Pologne. Assembl  en RPC.
amazon@dimaxgroup.com
www.konner-sohnen.fr

Esp a a:

Fabricado bajo licencia y control de DIMAX International GmbH,
Flinger Broich 203, 40235 D sseldorf, Alemania.
Importador y representante en Espa a de DIMAX International Poland Ltd,
Po udniowa 8 st, 05-830 Stara Wie , Polonia.
Ensamblado en la Rep blica Popular China.
amazon@dimaxgroup.com
www.konner-sohnen.es

Polska:

Wyprodukowano na licencji i pod kontrol  DIMAX International GmbH,
Flinger Broich 203, 40235 Duesseldorf, Niemcy.
Importer i przedstawiciel w Polsce: DIMAX International Poland Sp. z o. o.
ul. Po udniowa 8, 05-830 Stara Wie , Polska. Zmontowany w CRL.
amazon@dimaxgroup.com
www.konner-sohnen.pl

  kra ina:

Vиготовлено за л ценз єю та п д контролем DIMAX International GmbH,
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вул. Електрот хн чна 47, 02225, м. Київ,   кра ина. Змонтовано в КНР
www.konner-sohnen.com.ua

